



internationally trusted technology magazine

Browser Wars

Smart Home

The Pressure Is  
On With Apple

# How Secure Is Windows 10?

We take a look at how secure Microsoft's new operating system is, and what you can do to improve it



**REVIEWS:** Olympus E-M10 MkII, MSI Z170A Gaming M9, Dell UltraSharp 25, Canon 7D Mark II, ASUS ROG Maximus VIII Impact, LG G4



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Tel: 603-7955 7788  
Tel: 603-5569 2200

Unit No. D-2-50, Block Dahlia, 10 Boulevard, Jalan Cempaka, 47400 Petaling Jaya, Selangor, Malaysia.

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# Goodbye 2015

The year finally comes to an end as we wrap up the year with a few interesting things in our magazine. We recently attended a regional security conference held by Kaspersky, and it seems that some PC security issues just refuse to go away. That, and we had our first look at the act of bio-hacking, by implementing an NFC chip into your hand, which allows you to do a number of handy things.

As if that's not all, the year-end doesn't mean that companies aren't going release-crazy, as Lenovo launched not one, not two, but 18 different products and accessories, just to pre-empt everyone in the PC, tablet and mobile space. Sony Malaysia also finally unveiled its Sony Xperia Z5 and Z5 compact here, and by the time you're reading this, chances are the Xperia Z5 Premium would also have made its way here.

We also have something a bit special for our readers this month, as we asked numerous companies to talk about their businesses in 2015, and what they look forward to seeing and will be unveiling in 2016. It's an interesting read as the article spans a variety to tech industries, ranging from PC, mobile gaming and more.

On the reviews side of things, we've got a number of brand new cameras, including the Olympus E-M10 MkII, as well as the Canon 7D MkII. If you're looking for an affordable portable computing solution, we also have the Acer One 10, or if you're feeling a bit rich, the HP Elite X2 might be just up your alley.

**CHIP Malaysia**



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Bandar Damansara Perdana, Jalan PJU 8/1

47820 Petaling Jaya, Selangor, Malaysia

Tel: (03) 7727 6554 Fax: (03) 7727 3554

#### PRINTED BY

Unipress Printer Sdn. Bhd.

117-G, Jalan Tiaj 1/4, Taman Industri Alam Jaya,

42300 Bandar Punchak Alam,

Selangor Darul Ehsan.

Tel: (03) 6038 5578 Fax: (03) 6038 3944

#### DISTRIBUTED BY

MPH Distributors Sdn. Bhd.

Ground Floor Warehouse, Lot 2, Bangunan TH,

No. 5, Jalana Bersatu, Section 13/4,

46200 Petaling Jaya, Selangor

Tel: (03) 7958 1688 Fax: (03) 7956 5995

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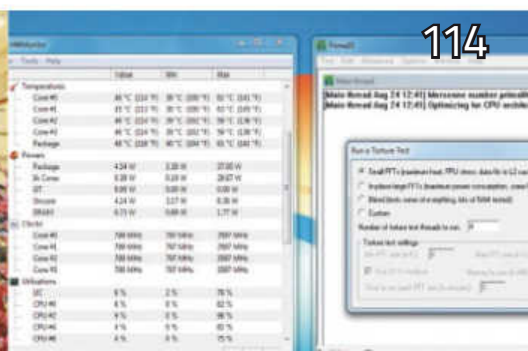
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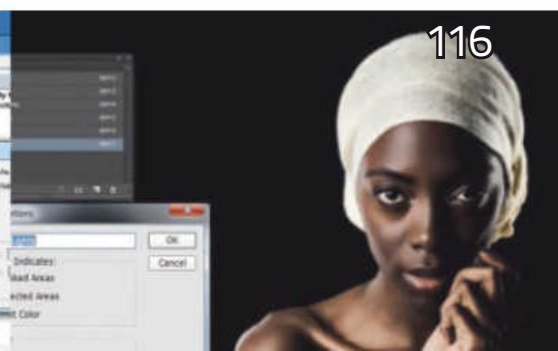
With Edge now entering the race for best internet browser, CHIP takes a look at who's leading



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# CHIP Downloads December 2015

We're back with our monthly dose of interesting, free and handy tools for you to enhance your PC experience. If you want to know how you can get these files, follow the instructions below:

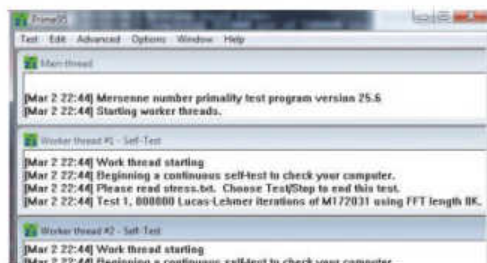
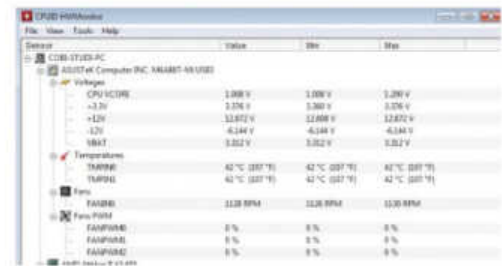
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3. Navigate using the tabs and pick the categories you want to download the files from. Once you find the file you want, just click on it and you're good to go!

And it's as easy as that!

**PASSWORD FOR DECEMBER 2015 - outlook2015**

## Featured Tools HWMonitor

HWMonitor is a hardware monitoring program that reads PC systems main health sensors such as CPU temperature, voltage, power consumption, and utilisation. It also detects mainboard voltages, temperatures and fan speeds of each dedicated fan. In addition to GPU voltages, temperature, and utilisation HWMonitor also detects hard drive temperatures. HWMonitor supports the latest hardware and is updated quite regularly to accommodate the latest components.



## Prime95

Prime95 is well known for its use in the overclocking world, a useful program that can be used to test stability when overclocking. A basic test would be running a "Torture Test" and if your PC can run for 24 hours without any errors than you can assume that you have a stable overclock. But its value is not only found in overclocking, as you can use the "Torture Test" on a brand new computer to test for any errors as there might be some hidden flaws that aren't noticeable.

## HDTune

HDTune is another tool you can use to check for errors and at the same time benchmark your hard drive. HDTune features a low level benchmark that will measure the performance of your hard drive or SSD. The health status of your hard drive can be checked through HDTune's S.M.A.R.T display together with detailed information of your hard drive. In addition, HDTune is capable of scanning for errors and as an extra function, securely erase data.



## Essentials

Our list of essentials consists of programs and software such as graphic drivers, browsers, compression software and even Cloud storage software that will improve a PC user's experience. The links on our website won't provide you with the files, instead it will lead you to the developers' official website, where you can find the right file for you.



# The Monthly Downloads

## HitFilm 3 Express

Operating system: Win 7/8/10

HitFilm 3 has been used to create some of YouTube's most popular content and the program allows you to compile, edit and then release the videos that you make. Some platforms are made readily available for release like YouTube, but if you want it in AVI format, that is also available.



## FastCopy

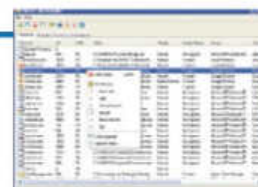
Operating system: Win XP/Vista/7/10

Although Windows has made much effort to improve the file transferring system on their operating systems, they always fall short on certain details. This is where FastCopy comes in and fills in the gaps which Windows leaves and is a great alternative to the default file transfer system.

## SterJo Task Manager

Operating system: Win XP/Vista/7/8/10

Throughout the years the Task Manager on Windows have been one of our best friends, providing all the basic functions needed for our everyday needs. SterJo Task Manager provides you with more options than Windows could and should be given a chance if you require more control over your processes.



## GWX Control Panel

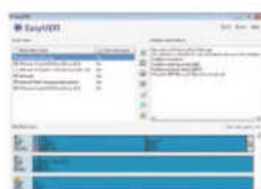
Operating system: Win 7/8

If you're happy with your Windows 7 or 8 and you don't want to upgrade to Windows 10, GWX Control Panel will search for the GWX tool which Windows uses to prepare the system upgrade operation, and then you can choose to suspend the tool and its notifications or just permanently disable it.

## Adapter

Operating system: Win XP/Vista/7/8/10

Adapter helps convert audio, video and image files using a simple and lightweight program interface. All you got to do is click, drag and drop the file you want converted into the user interface and select the desired output format in the drop-down menu and voila the deed is done.



## EasyUEFI

Operating system: Win Vista/7/8/10

Without the need to restart your computer to enter the UEFI, EasyUEFI allows you to access your computers UEFI straight from the Windows desktop. Making changes to your boot sequence or individual boot entries now can be done directly from Windows and makes it convenient for those who are using several operating systems.

## PingPlotter Free

Operating system: Win XP/Vista/7/8

With PingPlotter, searching for the causes of a weak internet connection and problems with a network card are a thing of the past. The tool analyses your network connections by testing routes used to test packets between the client and server, and then highlighting potential problems.



## ContaCam

Operating system: Win Vista/7/8

You can easily turn a webcam into a security camera using ContaCam. As long as it's a working webcam ContaCam can be used for recording and surveillance. ContaCam is extremely easy on system resources and doesn't contain and bloatware making it fast, light and versatile enough for home use.

## IZArc/IZip

Operating system: Win XP /Vista / 7 / 8

IZArc is an archiving tool just like WinRAR and supports a wide range of formats. IZArc allows you to drag and drop files from and to Windows Explorer, create multiple archives spanning disks, view and write comments and there is an integrated password detector. With a modern interface, IZArc supports most compressed and encoded files, and features many powerful tools.





# The Z5 Lands In Malaysia

Sony Malaysia announces availability of Sony Xperia Z5 and Z5 Compact

Sony Mobile has recently unveiled its next-generation Sony Xperia Z5 Dual and Z5 Compact smartphone in Kuala Lumpur recently, with the flagship Z5 Dual featuring support for two SIM cards. Both the Sony Xperia Z5 Dual and the Z5 Compact are powered by a Qualcomm Snapdragon 810 processor, with the Z5 Dual and Z5 Compact each featuring 3GB and 2GBs of RAM and 32GBs of storage which is expandable via microSD card. The phones also run Android 5.1 Lollipop mobile operating system.

As for display sizes, the Xperia Z5 Dual sports a 5.2 inch 1080p Full HD display, while the Z5 Compact features a smaller 4.6 inch 720p HD display, both using Sony's own Triluminos display technology and X-Reality For Mobile Dynamic Contrast Enhancer.


The main pull of the Xperia Z5 Dual and Z5 Compact is undoubtedly the super-charged

23MP camera, featuring a 1/2.3 Exmor RS sensor, alongside an F2.0 G lens. This is a big deal as it is Sony's first reimagined smartphone camera module since Sony first introduced the one that was used in the Sony Xperia Z1.

Both devices also feature Sony's iconic craftsmanship, as the Japanese tech giants use premium materials in the making of both the Xperia Z5 Dual and the Z5 Compact, using a metal frame and frosted glass finishing for the rear of the phone, as well as capless USB, despite being water-resistant throughout.

Not only that, both the Xperia Z5 Dual and the Z5 Compact also feature Sony's outstanding 2-day battery life, as each phone sports a 2,900mAh and 2,700mAh battery respectively.

Both the Sony Xperia Z5 Dual and the Sony Xperia Z5 Compact are available starting from 31st of October for RM 2,699 and RM

2,299 respectively. The Sony Xperia Z5 Dual is available in White, Graphite Black, Gold and Green while the Z5 Compact is available in Yellow and Coral, as well as White and Graphite Black. 

[www.sony.com.my](http://www.sony.com.my)



*The Sony Xperia Z5 sports a powerful CPU, a 1080p display and a camera that takes beautiful shots*



*Andrew Cheong, Country Director at Sony Mobile showing off the new Sony Xperia Z5 smartphones alongside a bevy of beauties*





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### Selected MB Models

|                                      |    |
|--------------------------------------|----|
| Z170A GAMING M9 ACK                  | 🔥  |
| Z170A XPOWER GAMING TITANIUM EDITION | 🌲  |
| Z170A GAMING M7                      | ❄️ |
| Z170A GAMING M5                      | ❄️ |
| Z170A GAMING M3                      | 🔔  |
| Z170A GAMING PRO                     | 🔔  |
| Z170A KRAIT GAMING                   | 🔔  |
| Z170I GAMING PRO AC                  | 🔔  |
| H170 GAMING M3                       | 🔔  |
| H170A GAMING PRO                     | 🔔  |
| B150 GAMING M3                       | 🔔  |
| B150A GAMING PRO                     | 🔔  |

### Selected VGA Models

|                                    |   |
|------------------------------------|---|
| GTX 980TI LIGHTNING                | 🌲 |
| GTX 980TI GAMING 6G GOLDEN EDITION | 🌲 |
| GTX 980TI GAMING 6G                | 🌲 |
| GTX 980TI SEA HAWK                 | 🌲 |
| GTX 980 GAMING 4G                  | 🔔 |
| GTX 970 GAMING 4G                  | 🔔 |
| GTX 960 GAMING 4G                  | 🔔 |
| GTX 960 GAMING 2G                  | 🔔 |
| GTX 960 GAMING 100ME               | 🔔 |
| GTX 950 GAMING 2G                  | 🔔 |

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Christopher Thompson, Vice-President of Enterprise Product Marketing, Plantronics(left) with Alvin Kiew, Director of Sales & Marketing, South-east Asia, Plantronics Inc, during a photo op session for the Plantronics Voyager Focus UC

# Plantronics Launches The Voyager Focus UC

Plantronics takes you on a voyage through unified communications

Plantronics, a global leader in audio communications for business and consumers, unveiled the Voyager Focus UC, the industry's first wireless Bluetooth stereo headset with active noise-cancellation (ANC) technology, designed to reduce noise and distractions in open, collaborative and remote workspaces.

Designed for enterprise workers in an open office or other loud environments, the Voyager Focus UC brands itself as a premium product for unified communications (UC) and multimedia applications. The headphones will provide all-day comfort and includes features such as intuitive smart sensor technology, audio alerts, wideband audio, and hi-fi stereo

for an incredible calling/music experience.

The Voyager Focus UC focuses on having a high-quality design that provides superior audio on both sides of the call. An immersive on-the-ear design, means that many high frequency




Just switch positions of the microphone to flip the left and right speakers

noises like office sounds and voices are reduced in volume. Wearers will find that low frequency sounds, like air conditioners, are reduced through ANC, and in order to reduce the noise that is transmitted and overheard by others, three precisely-tuned microphones and noise-cancelling algorithms reduce noise caused by keyboard clatter, close-talkers, and movement.

This premium headset features Class 1 Bluetooth with adaptive power delivering exceptional wireless range of up to 150 feet while preserving battery life. Together with Dynamic Mute Alert Technology, an industry first that senses speech and then alerts that the mute function is still active, means you won't have to repeat yourself if you forget to unmute. The leatherette ear cushions wrapped around pillow-soft memory foam deliver an all-day comfort, while a cushioned headband provides durability and helps main a comfortable fit.

Built-in onboard sensors create an intuitive and 'smart' user experience, with some examples such as

answering a call simply by putting the headset on or pausing audio when the headset is taken off and even resuming playback when placed back on. Furthermore, through intense testing of the Voyager Focus UC together with a collaboration of solutions from Microsoft, Cisco, Avaya, and Huawei ensures the best possible experience when using these applications.

The Voyager Focus UC is available now for RM1,518 from re-sellers only and you won't find them in retail stores. So if you're looking for this headset do contact the re-sellers from their main website. 

[www.plantronics.com](http://www.plantronics.com)



A docking station that doubles as a headphone stand and charges the Voyager Focus UC





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# Be Best Mates With The Mate S

Huawei joins the fray with their premium smartphone the Mate S

**H**uawei Technologies Malaysia makes further headway into the premium smartphone market in Malaysia with the official launch of their latest flagship device, the Huawei Mate S. Designed for Malaysian's who appreciate the elements of style and substance in their smartphones, the Huawei Mate S marks Huawei's growing commitment to create a premium look and feel in each of its devices, combining cutting-edge specifications and design.

The Mate S exudes style and simplicity with its full metal body, including a chassis designed from pure metal. The phone's thickness is 7.2mm, with side edges measuring 2.65mm. The phone's cushioned back features an ergonomic body for a comfortable grip, as well as skid resistant to help prevent the phone from being dropped. The edges of the LCD

display is made into a transparent frame that extend 2.25mm to the edge, resulting in a narrow exterior frame.

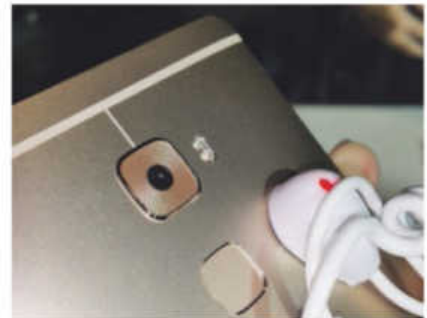
The Mate S' processing power comes from Huawei's own HiSilicon Kirin 935 64-bit octa-core processor and 3GB of RAM, coupled with 64GB of internal storage to provide all the storage space you need. Out of the box, the Mate S runs on Android 5.1 Lollipop, paired with Huawei's EMUI3.1 to provide a smooth and intuitive experience. And topping it all off is a 2,700mAh battery that will keep your phone running all day long.

Also featured is a 5.5-inch AMOLED FHD screen that is protected by a 2.5D fourth-generation Gorilla glass screen that keeps those pesky scratches away. Another notable feature is Huawei's very own Knuckle Sense 2.0, with functions which include circling a screen

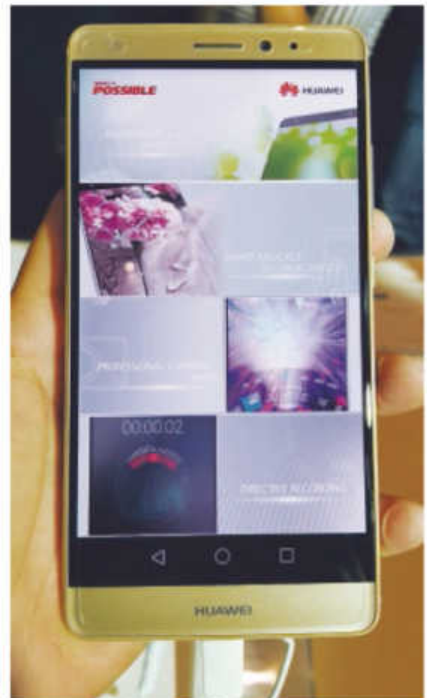
display to capture a screenshot, drawing letters to activate apps, and double-knocking to record. The new FingerPrint Sense 2.0 meanwhile improves fingerprint recognition and not to mention the all-new Force Touch which allows different actions to be done when using varying amounts of pressure.

The phone also sports a 13MP rear camera with Optical Image Stabilizer (OIS), RGBW colours, and independent ISP hardware configuration. With a Professional Camera mode that allows for manual adjustment of ISO, exposure compensation, exposure time, and white balance. While for taking selfies, it has an 8MP front camera that uses a soft, front light and a new algorithm for a skin "beautifying" effect. The Huawei Mate S is available now at RM 2,698 inclusive of GST from authorised stores nationwide. 

[consumer.huawei.com/my/](http://consumer.huawei.com/my/)



The body of the Mate S is fully metallic and sports a 13MP rear camera with Optical Image Stabiliser (OIS)



The Mate S has a new Knuckle Sense 2.0 feature that allows you to draw patterns with your knuckle to launch apps



From the left, Danny Chin, Marketing Director of Consumer Business Group, Huawei Technologies Malaysia, Gary Xu, Country Director of Consumer Business Group, Huawei Technologies Malaysia, Peter Tong, South Pacific Region President, Huawei Consumer Business Group, Matthew Ng, Sales Director of Huawei Consumer Business Group, posing while showing off the Huawei Mate S





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The MSI GS40 Phantom steals the spotlight at the launch with its sleek and slim body

# MSI Reaches For The Skies

MSI jumping on the Skylake bandwagon with a brand new line of laptops tailored for gaming on a mobile platform

**M**SI, a leading brand when it comes to gaming notebooks, has launched their new line of Intel Skylake-based gaming notebooks. Using the latest sixth-generation Intel core i7 processors, hardcore gamers will find solace when they finally get their hands on these powerful machines. Not only that, MSI introduced enhanced gaming features and exclusive technologies set to fully unleash the revolutionary computing power of the new Intel Skylake architecture.

Starting with the MSI GT72 Dominator Pro G, the laptop is designed to dominate the cyber world together with its brushed-metal lid and aesthetic line design, mixing performance with style. Sporting a choice of an Intel Core i7 6820HK or 6700HQ, and NVIDIA GeForce GTX 980M or 970M, the laptop is ready for your intense gaming sessions. You may also have up to 32GB of

DDR4-2133 RAM and not to mention Super RAID 4 for lightning fast SSD speeds.

Then there is the GS60 and GS70 Ghost laptops powered by Intel Core i7-6700HQ and either a NVIDIA GeForce GTX 970M or 960M. These laptops also feature a keyboard designed by SteelSeries that won't let you down. The main advantages of the GS60 and GS70 are their ultra slim design combined with powerful components, striking a balance between portability and performance which is perfect for gamers who refuse to compromise on form and function.

Also making an appearance in MSI's new line of laptops is the GE62/72 Apache Pro laptops which especially designed for mainstream gamers who demands performance, portability and better gaming experience in one device. The laptop houses an Intel Core i7 6700HQ processor and either




The laptops come with a SteelSeries designed backlit keyboard with great feedback for gaming



Ramona Azween, Professional CS:GO Gamer also made an appearance with her favourite gaming notebook from MSI, the GS40 Phantom

a NVIDIA GTX 970M or 960M that promises the performance you need to game what you want. Keeping the Apache Pro's quiet and cool are MSI's new Cooler Boost 3 with Fan Boost to push all the unwanted hot air out of your laptop during your intensive gaming sessions.

Stealing the spotlight was MSI's extreme slim mobile gaming notebook: the MSI GS40 Phantom. A 14-inch slim gaming notebook with the enthusiast-grade NVIDIA GTX 970M graphic card giving the GS40 unprecedented power in an ultra slim and portable design. Weighing in at a mere 1.6kg, the GS40 can be brought to LAN parties, travelling, work and university. In addition, the GS40 comes with an ESS SABRE HiFi Audio DAC for audiophile grade sound and Killer Doubleshot with Killer Shield, pushing the GS40 Phantom as a true premium gaming laptop. The laptops are now available in authorised stores. 

[www.msi.com](http://www.msi.com)

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Bruce Howe, Consumer Channel Lead, Microsoft Malaysia; Khoo Hung Chuan, Country General Manager, Lenovo Malaysia; Karen Chow, Head of MNC and Telco Intel Malaysia and Singapore; Andy Tan, Senior Product Specialist, Consumer Segment, Lenovo Malaysia and Model, during the Lenovo Technology of Evolution media event

# PCs, Notebooks And Tablets For One And All

Lenovo Malaysia caps 2015 with array of products

Lenovo has had quite a busy year in 2015 with its bevy of launches, ranging from PCs, notebooks, tablets as well as smartphones. Nearing the end of the year, the company has decided to unload a whopping 18 devices and accessories for December 2015 and early 2016 all at one event, indicating that Lenovo has no plans to slow down anytime soon.

Lenovo looks to go all out on the gaming front as the company introduces two gaming machines to its line-up of PCs: the Lenovo Ideacentre Y900 gaming PC and the Lenovo Ideapad Y700 gaming laptop. Both the Y900 and Y700 machines are powered by Intel's sixth generation Skylake processors, and are equipped with NVIDIA's powerful range of graphic processing units, which includes the GTX 980 and GTX 970M respectively.

Not only that, with both the Y900 and the Y700, Lenovo has also included its own brand

of gaming accessories, which includes a gaming mouse, a mechanical keyboard, a backpack and a pair of gaming headphones.

For the YOGA series, Lenovo announced three brand new YOGA devices, including the YOGA 900 convertible laptop, YOGA Tab 3 8.0 inch and the Lenovo YOGA Tab 3 Pro tablets. The Yoga Tab 3 8.0 sports an 8.0 inch 1,280x800 pixel display, powered by a Qualcomm Snapdragon 210 processor with 1GB of RAM and 16GBs of storage, expandable up to 128GBs.

The YOGA Tab 3 Pro meanwhile has a 10.1 inch QHD display, powered by an Intel Atom processor, with 2GBs of RAM and 32GBs of storage, which is also expandable via microSD. The YOGA Tab 3 Pro's main claim to fame is of course its projector, which now can be rotated 180 degrees to a wall or ceiling for your viewing pleasure. On top of that, it also has four front-facing JBL speakers that have support for Dolby



The Lenovo Ideacentre Y900 is a super-powered computer, sporting a 6th generation Intel Core i-series processor, with an NVIDIA GTX 980 processor



The Lenovo Miix 700 is powered by a 6th gen Core i-series processor, and functions as both a tablet and a notebook, running Microsoft's Windows 10 operating system



The Lenovo Yoga 900 convertible laptop sports an Intel Core m processor, which has great performance and battery consumption combined

Atmos audio, and a battery life that lasts up to 18 hours on a single charge.

PCs and tablets aren't the only thing Lenovo launched at the event as they also unveiled accessories in the form of a pocket projector and a Bluetooth speaker. The Lenovo Pocket Projector offers multimedia enthusiasts a fresh way to view and stream content for work and play. The Lenovo 500 2.0 Bluetooth Speaker meanwhile features a portable metal design and 270-degree sound projection to deliver an enriched audio experience that's perfect for every occasion from indoors to outdoors.

All the products shown at the launch event are expected to be available in Lenovo stores and authorised resellers nationwide starting from December 2015 and January 2016 onwards. 🇲🇾

[www.lenovo.com/my/en/](http://www.lenovo.com/my/en/)





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- a Sealant on bobbin
- b Groove outside of the bearing helps to circulate the oil
- c Recycle slot adds extra storage space for the oil
- d Shaft makes the oil flow by pumping it while spinning

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# Love 11 With 11street

11street celebrates its first anniversary in Malaysia

**K**orean online marketplace 11street has recently stated its desire to reinforce its commitment to customers by unveiling brand new plans for its mobile app and signature 'Shocking Deals' and have chosen the 11th of each month as its LOVE 11 Day to surprise shoppers with deals and giveaways.

This commitment was announced at its first anniversary celebration event at Lot 10, focused on rewarding Malaysian customers for their support throughout the year. From now until the 31st of December this year, shoppers will be able to redeem daily offers of deals and coupons with up to 90 percent discounts, valued at RM11 million as a year-end treat.

As of right now, 11street is a Top 40 website in Malaysia, with over seven million quality items selling at very competitive

prices.

'We selected November 11 to announce these commitments because it is a day that is symbolic to our brand name, and is also a day where 11street Korea celebrates by giving back to its consumers.', says Hoseok Kim, CEO of 11street.

According to Kim, 2016 will see 11street give even more focus on the mobile space, spurred on by the company's high amounts of activity in that space this year. According to a Nielsen report, 47 percent of Malaysians use their mobile devices to shop online, and this method is continuing to grow as the country

ranks sixth out of top 10 markets globally for mobile shopping.

Next year, the company will look to place a stronger focus to serve mobile shoppers through a two-pronged approach, by providing more curated content, an improved user interface and experience designs, as well as additional features for greater customer experience. 🇲🇾

[www.11street.my](http://www.11street.my)



Hoseok Kim, CEO of 11street addressing the media at the event



Hoseok Kim (centre) with Running Man host Ha-Ha (first from left) and actress Emily Chan sharing a candid moment on stage



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Back row fourth from the left is Muhammad Izahar Mohd Noor, Xpax Brand Manager, Zalman Aefendy Zainal Abidin, Celcom Axiata Bhd Chief Marketing and Sales Officer (middle), Alvin Tan, Xpax Group Brand Manager (fourth from the right) and cosplayers at the launch of the Xpax Fantasy Fest 2015

# Xpax Fantasy Fest Returns

Cosplay, Games, and Anime all in one venue for you to experience.

Xpax Fantasy Fest is returning again this year as a two-day event from 28-29 November 2015 at StarXpo, Kenanga Wholesale City (KWC) from 10am till 10pm. So fret not if you're missing AFA Singapore on the same date because Xpax Fantasy Fest is here to turn your frown upside down. Be prepared for a fun experience with gaming tournaments, cosplay competitions and many more.

If you're a MAGIC SIM customer, you are entitled for exclusive privileges such as playing VR360, taking Purikura's and the first 200 customers will also enjoy FREE Naruto Ramen. Together with Celcom's partnership with Sony, customers can be the first in line to play the much awaited Street Fighter 5 that's being previewed for the first time in Malaysia.

MAGIC SIM customers also stand a chance to have a Meet and Greet session with International & Local Anisong Artists, not to mention a VIP express lane especially for you during the celebrity cosplayer's photo


opportunity and autograph session, with a lineup of international cosplay celebrities such as Misa (Taiwan), King (Taiwan), Danielle (Brazil) and Masazi (Japan).

Cosplayers who join the cosplay competition stand to win cash and prizes totalling up to RM10,000, and the champion of the solo category will also win a four day three night visit to Osaka, Japan where they can experience the Animax Music Event as well as a tour around the city of Osaka. There are also other competitions during the event such as a DoTA 2 tournament which consists of the traditional 5v5 mode, and also game mods such as Pudge Wars, 10v10 and Skillshot Wars.

Special perks after the event will also be given to MAGIC SIM customers which include 10 percent discount on all DoTA 2, Card Games and Gaming peripherals in all Thunder Match outlets until the end of December 2015, sponsored by TMTonline. And of course we can't have an ACG event without



Zalman Aefendy Zainal Abidin shares with the media on the great response and growth of the ACG community and Xpax Fantasy Fest

a Marketplace where customers can simply enjoy or purchase their favourite collectibles and games from various shops and local artists, and is open to the public.  [www.xpax.com.my/fantasyfest2015](http://www.xpax.com.my/fantasyfest2015)

# Synology



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# Bringing Cloud Services To Local Businesses

Companies can now easily get cloud services online thanks to MalaysiaOneCloud

CloudFX Group and the Multimedia Development Corporation (MDeC) have recently announced the launch of its Malaysian-centric next-generation cloud service market place called MalaysiaOneCloud, a B2B (Business-2-Business) e-commerce platform that serves as a central repository for secure, available and high-performance cloud services from proven global, regional and local cloud service providers.

The MalaysiaOneCloud is a one-stop platform to serve Malaysian customers' need for a wide range of cloud-based products and services including CRM, ERP, GST-based accounting cloud solutions, finance, communication, mobility, infrastructure, storage, e-mail, backup, security, network, data center services and more. The collaboration


between CloudFX and MDeC aims to accelerate cloud adoption among customers from all vertical markets including banking and financial, manufacturer, logistic, commerce, retail, government and enterprises.

MDeC's Vice President of Infotech, Norhizam Abdul Kadir said, "With MalaysiaOneCloud, we are bringing cloud technology into the mainstream and making it more accessible than ever. Businesses can easily identify and choose the ideal cloud solutions for their needs with full disclosure of what they are paying for."

Local enterprises can now enjoy greater IT cost reduction with a cloud pay-per-use model. MalaysiaOneCloud provides broad range of local independent software vendors' (ISV) Software as a Service (SaaS) solution, and also the best breed of international

cloud products and services available. This partnership between CloudFX and MDeC will help local ISVs accelerate their cloud platform migration process and increase their revenue and exposure in regional and global markets. The platform will also simplify local companies to have anything-as-a-service (XaaS) solutions that will add business values to enterprises.

To complement the platform, CloudFX and MDeC have developed a number of independent software vendors (ISVs), as well as partner and customer enablement programs to help business owners understand the usage of Cloud services and also to engage eco-system partners in making MalaysiaOneCloud one of the most successful, value-based cloud services market in the world, focusing on enabling the next generation technology services needs to all businesses in Malaysia.

MalaysiaOneCloud has completed more than 2 years of user tests with global and regional service providers in conjunction with more than 1000 hours of consultation with local market leaders from system integrators, ISV's, resellers, enterprises and small-to-medium enterprises to ensure that the experience, portfolio, pricing and support model is flawlessly delivered to maximise customer value. 

[www.malaysiaonecloud.com](http://www.malaysiaonecloud.com)



Norhizam Abdul Kadir, MDeC's Vice President of Infotech (right) and Mohammed Sabuwala, CTO of CloudFX at the launch of the MalaysiaOneCloud service



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# Lenovo Malaysia Introduces The VIBE P1 And P1m To The Malaysian Market

A phone as a power bank. Is it possible?

Lenovo is back again with two power-packed VIBE smartphones built for users who like to stay unplugged from walls and power banks. The VIBE P1 and P1m let users constantly stay productive and online with an exceptional battery life and feature a manual power saver switch to instantly extend battery life.

An OTG Charging (On-The-Go) function is also packed together with the phones, which allows the P1 and P1m to act as pseudo-power banks and charge USB-connected devices, such as Bluetooth headsets and portable speakers. The VIBE P1 comes with an incredible 5000mAh, one of the highest-capacity battery

in its class that ensures your smartphone will last throughout the day and a 24W quick charge function for rapid battery charging.

Housed inside the VIBE P1 is a 1.5GHz Qualcomm Snapdragon 615 64-bit octa-core processor for users that multi-task, and 2GB of RAM for fast performance. To ensure a speedy and uninterrupted web-surfing experience, the VIBE P1 sports WiFi Boost providing 5G WiFi support for improved WiFi speed and range. Meanwhile, an embedded fingerprint scanner on the home button supports black screen unlock and brings about even greater convenience and security.

The VIBE P1 also comes with a 13MP rear

camera with fast-focus PDAF technology and a 5MP selfie camera with multiple shooting modes and beautification features. Everything is built into a premium metal-and-glass design, accentuated by a slender aluminium frame, and a subtly curved rear metallic cover for improved ergonomics. Not to mention, the screen is made of Gorilla Glass 3, a thinner and lighter version of Corning's scratch-and-crack resistant protective glass.

Then there is the VIBE P1m, the smaller brother of the VIBE P1 that comes with a smaller 4,000mAh battery but still retains the quick charge and OTG Charging functions. Lenovo also engineered the P1m to be 'life-proof' with its splash-proof capability via nano-coating technology. These, coupled with a powerful Mediatek 64-bit quad-core processor and a vivid 5-inch HD screen, make the VIBE P1m a truly exceptional value-for-money device.

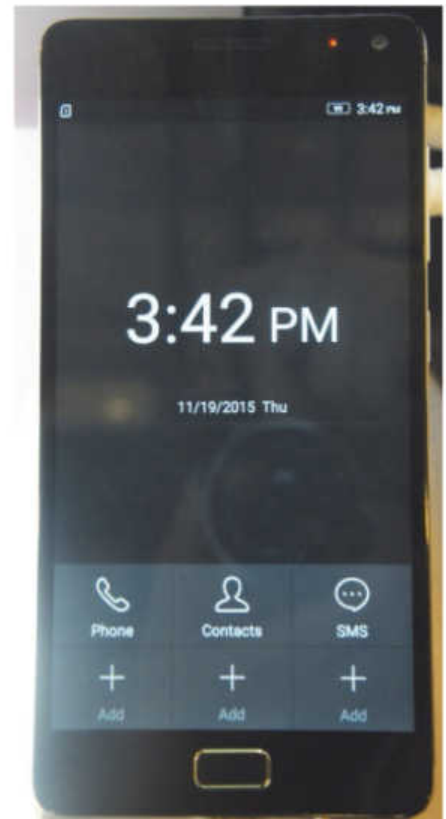
The VIBE P1 is available in Platinum and Graphite Grey at a suggested retail price of RM1,199, while the VIBE P1m is available in Onyx Black and Pearl White for a suggested retail price of RM649 at authorised retail stores.



<http://www.lenovo.com/my/en/>



BT Tay, Senior Managing Director, Ingram Micro Malaysia (left), Foo Mun Yee, Country Lead, Lenovo Smartphone, Malaysia (centre), Djohan Susanto, Chief Executive Officer, Era International Network (right), holding the Lenovo VIBE P1 and VIBE P1m smartphones



The replacement homescreen when you flip the switch for the power saving feature

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- Available in : Black, White

RM259<sup>00</sup>



## Sony R10 Quick Charge USB Portable Charger (10,000mAh)

- Contains Sony-manufactured lithium-polymer rechargeable battery
- Battery capacity of 10,000 mAh
- Quick Charge 2.0 Compatible
- Retains more than 90% of its capacity at approximately 1,000 charges
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- 4 LED battery indicator
- Available in : Silver

RM199<sup>00</sup>



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From left, Jared Lee, Grim Films, Datuk Yasmin Mahmood, MDeC CEO, Sinan Ismail, DiDi & Friends, Hasnul Hadi Samsudin, Director of MDeC Creative Multimedia Division, Sajith Sivanandan, Managing Director of Google Malaysia at the launch of the Made For YouTube campaign

# MDeC And Google Made For YouTube

MDeC and Google collaborate to bring more Malaysian content to the Internet

**M**DeC and Google are collaborating for the Made For YouTube campaign, which aims to promote the production of local creative content. Through this collaboration, YouTube and MDeC will provide dedicated support to local content developers to help them achieve growth and success throughout the year long programme.

"Google highly encourages content creators and businesses to embrace digital as a platform. We would love nothing more than to help bring more Malaysian content onto the open Web and have Malaysian digital creators to connect directly with their fans." Said Sajith Sivanandan, Managing Director of Google Malaysia, Vietnam, Philippines and New Emerging Markets.

"The Internet has and will continue to enable YouTubers, creative creators and online publishers become successful. And Google is

committed to helping our Malaysian content creators attain that success through our tools and platforms," he added.

The campaign aims to grow local digital media content creators to bring them to the next level and reflect MDeC's continued efforts to build the 'new media' sector to ensure healthy growth within the industry. The goal for the collective group is achieve RM1 million in revenue. Content creators will receive production facilities such as the Malaysia Animation Creative Content Centre (MAC3) and funding development.

"Our collaboration with Google aims to increase the reach, capability and competency of Malaysia's creative industry by helping home-grown content creators to produce, monetise and commercialise world-class content on the YouTube platform. At present, MDeC is on a game-changing mission to spur



Sinan Ismail shares what it takes to become one of the fastest growing channels in Malaysia



Jared Lee shares with the media, the impact his short film 'The Long Distance Relationship' has made and the success behind the film

the creative content landscape for Malaysia, especially focusing on content for games. This partnership is very much aligned with our aim of positioning Malaysia as a regional hub for creative content", said Dato Yasmin Mahmood, CEO of MDeC.

Not only that, they will also receive coaching sessions and workshops to improve their ability to produce content and dedicated manpower via direct contact with YouTube Account Manager. There is also growth and strategic advice for content creators so they can plan for the future. Over 20 MSC companies were handpicked by both MDeC and Google to be self-sustaining brands on YouTube. The main categories of the channels are Animation, Games/Gamification/Review, Original content series and Music videos. 🇲🇾

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From the left Bruce Howe, Consumer Channel Group, Microsoft Malaysia together with Muhammad Fakhru Akmal, Graffiti Artist Mile09 (centre) and Michal Golebiewski, Chief Marketing & Operations Officer, Microsoft Malaysia (right) during a joyful photo op session

# Microsoft Unveils The Surface Pro 4 In Malaysia

For the budding artist or professionals on-the-go, the Surface Pro 4 makes an excellent companion on all your journeys

Microsoft Malaysia has launched the Microsoft Surface Pro 4 officially and announced its availability throughout Malaysia. At only 8.4mm thin, the Surface Pro 4 comes with the latest Microsoft Windows 10 Pro operating system and Intel's sixth-generation Intel Core m, Core i5 and Core i7 processors. With the latest Skylake processors, the Surface Pro 4 is 30 percent more powerful than its predecessor and runs quieter, cooler and more efficiently.

The Surface Pro 4 is housed in a sleek and sturdy magnesium case and features all the ports that make the Surface lineup unique. These include USB3.0, a microSD

card reader, and Mini DisplayPort that's capable of connecting to 4K displays. It also features a 12.3-inch touch sensitive PixelSense display with a 3:2 aspect ratio for comfortable viewing and note-taking.

Malaysian graffiti artist, Muhammad Fakhru Akmal (Mile09) featured a graffiti mural at the launch



One of the five artworks that were showcased at the launch, the artwork is done by Delwin Cheah and is designed on the Microsoft Surface Pro 4

and had this to say, "I wanted to highlight Malaysia from past to present. The Surface Pro 4 allowed me to do just that and the experience was exhilarating. The Surface pen and screen works precisely and as natural as a regular pen and paper. Once I've completed my sketch, it was easy for me to then visualise my artwork on a larger canvas. I also don't have to worry about losing my artwork or damaging them as I now save them on OneDrive, and am able to retrieve and refer to them whenever I want."

You can transform your Surface Pro 4 instantly into a laptop with the new Surface Pro 4 Type Cover that is redesigned with optimal key spacing for fast and fluid typing. The redesigned Surface Pen also lets you write, draw, and mark documents with precision ink on one end and an eraser on the other. Consumers can purchase the Surface Pro 4 and its accessories at the Microsoft Online Store as well as on Lazada.

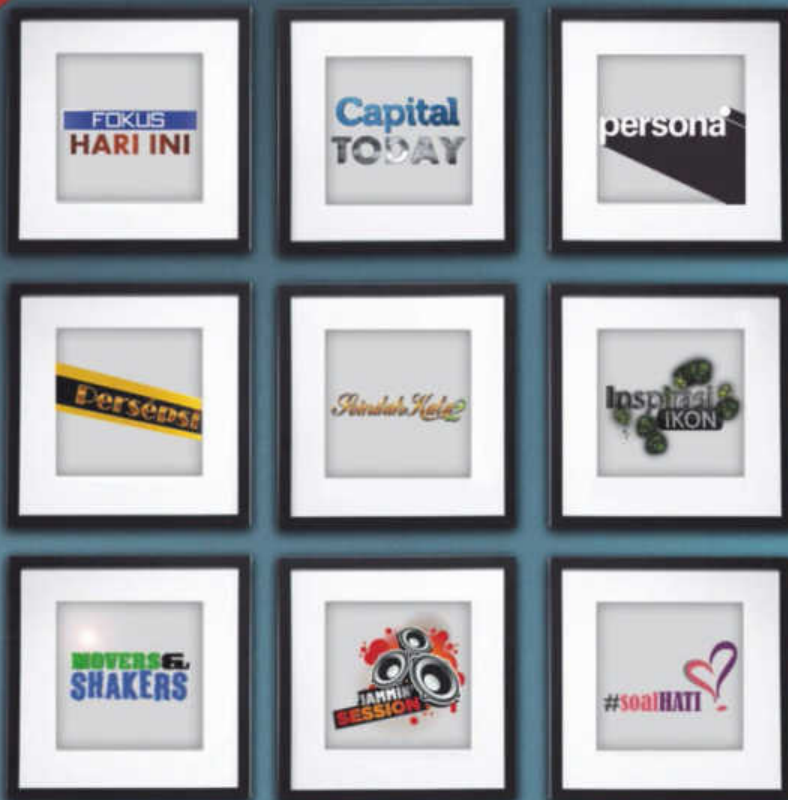
Consumers can also experience the Surface Pro 4 at any of the nine Microsoft Authorised Reseller Stores in Klang Valley, as well as select Microsoft authorised retailers and businesses to contact commercial resellers for more information.

The following prices are for the Surface Pro 4 in their different configurations, Core M/128GB/4GB - RM3,999; i5/128GB/4GB - RM4,449; i5/256GB/8GB - RM5,799; i7/256GB/8GB - RM7,099; i7/256GB/16GB - RM8,049; i7/512GB/16GB - RM9,799.

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From left to right, second from Left, Sandy Lee, Senior Marketing Manager of Consumer System Products (CSP) Division of Canon Marketing (Malaysia) Sdn. Bhd., Wataru Nishioka, President and CEO of Canon Marketing (Malaysia) Sdn. Bhd., Jeffrey Kung, Assistant Director of Consumer System Products (CSP) Division of Canon Marketing (Malaysia) Sdn. Bhd. and Akiyama Hiromu, Manager of Regional Sales & Marketing of Consumer System Products' (CSP) Business Planning

# Canon Showcases Beauty With Ink

Printers that truly showcase the meaning of Beauty With Ink

Canon Marketing Malaysia hosted an incredible event at Lexis Hibiscus, Port Dickson in conjunction with the release of a star range of inkjet printers. The event, 'Beauty With Ink' brought Canon Marketing Malaysia team members, business partners as well as members of the media on an artistic journey in celebration of the latest Canon inkjet and laser printers.

The all-new PIXMA G Series printers come equipped with the new Refillable Ink Tank System technology, and the three models under this range include the PIXMA G1000 (single function), G2000 (multifunction) and G3000 (multifunction & wireless). These printers promise high volume printing at low running costs without compromising on the quality of printed documents and photos, and are designed to meet the printing requirements of

different customers.

Convenience is key here as ink cartridges don't need to be constantly replaced as the new refillable ink tank systems make that a thing of the past. With a printing capacity of 6,000 pages for monochrome printouts and 7,000 for coloured documents, Canon's proprietary ink refills deliver high page yields that satisfy even the most discerning home and office users.

As desk space is limited and a luxury for

many, Canon's latest PIXMA G Series printers are built to be compact but sturdy with an added feature of see-through ink tanks that can be seen from outside the body, so you can always tell when it's time to refill the ink. Acknowledging that their previous ink bottles have caused spillage, Canon has taken it a step further to enhance the user experience by redesigning their ink bottles with screw-down caps as to prevent unwanted leakage and spills, along with them being customised to assist in smoother ink flow during refills preventing



Jeffrey Kung, Assistant Director of Consumer System Products (CSP) Division of Canon Marketing (Malaysia) Sdn. Bhd. and Wataru Nishioka, President and CEO of Canon Marketing (Malaysia) Sdn. Bhd. answering questions from the media during a Q&A session during the launch of their new printers



*The G1000 single-function printer that promises high volume printing at low running costs without compromising on the quality of the printed documents*

splatters and unwanted mess.

Not to mention, bringing impeccable quality prints to your home or office with Canon's renowned hybrid ink system, using a combination of pigment black ink and dye colours, which deliver detailed document and photo prints. The printers show off their versatility with print engines capable of printing borderless photos of up to A4 sizes while a 4R borderless photo can be produced in 60



*The black and colour ink tanks are on opposite sides and when opened the tanks are easily accessible for refilling*

seconds.

Additionally, the PIXMA G3000 allows for instant connection to mobile devices through Canon's proprietary application, and does so using its Wi-Fi feature. The PIXMA G Series is available at select Canon authorised outlets and are priced at RM499 for G1000, RM599 for G2000 and RM799 for G3000. All prices are inclusive of GST.

But the PIXMA G Series weren't the only



*The PIXMA G Series allows you to monitor the ink levels from outside the printer so you can always know when it's time to refill the corresponding tanks*

printers that were showcased during the event, also on display was a new range of Canon PIXMA printers which includes MG3670 in red, MG5770 in black, as well as the flagship MG7770 which is available in red, black and the all-new gold colour, all of which feature the latest advancements in functionality.

With a quick setup time that is complemented by an advanced wireless printing capability while using the access point mode feature, users can have greater freedom in printing. Meanwhile, the AIO printers also sport innovative solutions and software such as PIXMA Printing Solutions, Easy-PhotoPrint+ and PIXMA Cloud Link make it easier and more convenient to print directly from mobile devices and also from online sharing sites.

The new MG Series features a Full-photolithography Inkjet Nozzle or FINE technology for short, to create high nozzle count and high-density printheads with microscopic ink droplet sizes which results in ultra-high resolution images that are superb in quality. XL-sized cartridges for the MG Series allow higher page yields for users to print more while minimising ink replacement cycles and overall cost of ownership.

The PIXMA Photo AIO MG3670 is available at RM350, the MG5770 for RM406 and last but not least the flagship MG7770 for RM841, and can be found at Canon authorised outlets.

Other than the MG series Canon also showcased new colour laser printer models that cater to the diverse needs of businesses and larger workplaces. The MF621Cn (3-in-1) and MF628Cw (4-in-1) was a crowd pleaser with their advanced features, which included a colour touch screen feature with an intuitive 'touch and flick' functionality, as well as a toner status monitor. Both printers are capable of delivering both monochrome and colour printouts at speeds of up to 14 pages per minute.

Connectivity is enhanced in the MF628Cw as the Wi-Fi Direct function enables mobile devices to connect directly to the printers, eliminating the need for routers, and businesses will find the embedded RDS convenient for remote monitoring of consumables




*The PIXMA Photo AIO MG3670 one of the three MG printers launched, comes only in red*

and printer maintenance. This is made possible with Canon's PRINT Business App and Canon Service plug-in as well as other third party solutions such as Apple's AirPrint, Google CloudPrint and Mopria.



*The flagship PIXMA Photo AIO MG7770 features a 3.5-inch touchscreen colour LCD and a memory card slot, additionally it also has direct disc print capabilities*

The imageCLASS MF621Cn and imageCLASS MF628Cw are available at selected Canon authorised outlets. The printers are priced at RM1,520 for the imageCLASS MF621Cn while the imageCLASS MF628Cw is priced at RM1,840. 

[www.canon.com.my](http://www.canon.com.my)



*Wataru Nishioka, President and CEO of Canon Marketing (Malaysia) Sdn. Bhd. and Jeffrey Kung, Assistant Director of Consumer System Products (CSP) Division of Canon Marketing (Malaysia) Sdn. Bhd. together with the entire lineup of the brand new PIXMA G Series printers*



# Jabra Launches The Rugged Jabra STEEL

Rugged and durable for any weather and scenario

Launching a brand new Bluetooth headset designed for rough working environments, Jabra, the leading manufacturer of innovative audio solutions, brings us the Jabra STEEL. A superior, state-of-the-art headset developed using their 14 years of R&D expertise in delivering audio innovation.

Following an extensive examination of the daily needs of trade professionals and craft workers, Jabra has created a highly durable headset to meet the specific needs of those with the toughest jobs, whether on-site in high winds, covered in dirt or under a kitchen sink. The headphones are rigorously tested by exposing the headset to high drops on to hard surfaces, testing it for water and dust ingress, as well as vibration, temperature and squeeze

testing.


Jabra STEEL is also suitable for noisy environments, offering HD Voice with dual-microphone noise cancellation technology that isolates your voice. Using Bluetooth, important calls can be taken on the spot without hampering your work. The custom-designed ear-hook also provides a secure fit regardless of the task being undertaken. With a hard casing for shock resistance, Jabra STEEL has been tested to cope with challenging workplace environments.

For those working in particularly windy conditions, a special windsock ensures clear communications when outside. The headset is equipped with a unique MicroPOWER battery



Jasmine Teo, Channel Sales & Marketing Specialist (left) and Margaret Ang, Regional Sales Manager at the launch of Jabra's new line of rugged headphones

that comes with over 6 hours of talk time, as well as a power nap feature for extended standby time. Teamed with the Jabra Assist Application, the Jabra STEEL offers extra services including a handy set-up guide and access to its battery status.

The Jabra STEEL only weighs 10 grams and can be operated with large buttons for easy control with an operating range of up to 30m, depending on the phone. It also comes with a unique 5-year warranty and is available now for RM449. 

<http://my.jabra.com/>

# KENXINDA Brand Launch

Could it be the next big budget brand?

KENXINDA Malaysia unveils its full range of products which targets the mid-low market, yet with attractive specifications of the device. Being in the industry for years KENXINDA boasts that they are capable of providing quality products at affordable price tags. Be prepared as Malaysia consumers are set to be spoiled for choice with the debut of KENXINDA's range of products.

Finally making its way to Malaysia, KENXINDA was established in the year 2003 in Shenzhen, China with a business philosophy of affordable, stylish and a wide variety of products. Having the experience to create products for their customer needs, sales and services, users will have peace of mind and confidence with the range of products offered by KENXINDA with a main focus to reward customers from their trust.


"We are proud to present KENXINDA to Malaysia as the first country in Asia,

We believe that all our products will blow away our customers with the experience of our products yet with the most affordable price in the market" said Daniel Chia, CEO of KENXINDA MALAYSIA. He also added "It was our pleasure to start with Malaysia as we intend to aim high and are confident of introducing even greater devices in the future."

In conjunction, with the official launch of their brand, KENXINDA is offering a promotion for the KENXINDA Smart Watch for only RM199 which comes with a Bluetooth headset worth RM99 for the next 3 months. KENXINDA also held a roadshow in Plaza Lowyat to let



Gary Lam, Manager of Marcom & Public Relations, Plaza Lowyat (second from left), Daniel Chia, CEO, Kenxinda Malaysia (third from left), Elaine Liew, Executive Manager of Marketing & Leasing, Promotion, Plaza Lowyat (centre), Albert Khoo, General Manager – Management & Operations, Plaza Lowyat (third from right), and Daryl Chang, Head of Sales, Kenxinda Malaysia taking a group photo at the launch of the Kenxinda brand

all their customers experience their products and have plans to launch concept stores around Malaysia with confirmed outlets at Plaza Lowyat, Queensbay Mall, and Dataran Pahlawan Mall. 

[www.kenxinda.com.my](http://www.kenxinda.com.my)



Christian Thrane, Chief Marketing Officer, Digi (left) with Kesavan Sivabalan, Chief Network Officer, Digi

# Digi Grows Wider Than Ever

Malaysia's widest 4G LTE network just got wider

**D**igi Telecommunications Sdn Bhd (Digi) announced that Malaysia's widest 4G LTE network now connects even more Malaysians to its high-speed internet services with 60 percent population coverage. Engineers from Digi have been busy rolling out its network this past month to bring 4G LTE access to 80 major cities and towns, with key market centres averaging 95 percent population coverage. Digi has also switched on its 4G LTE-Advanced network nationwide with a 22 percent coverage footprint, reaching an average 50 percent population coverage in key market centres.

Kesavan Sivabalan, Chief Network Officer of Digi said "For us, it's about delivering a strong network and customer experience across the board. We are building more sites to densify the network and overlaying a large number of our sites to dual band, 1,800Mhz and 2,600Mhz, to ensure that our customers

experience consistently higher internet speeds with improved outdoor and indoor coverage. We designed our network our also deliver a minimum signal strength quality of -110dbm which is comparable with our counterparts in Scandinavia and telco operators in countries like Korea, Japan, Singapore and Taiwan."

This combination of density, coverage and capacity has enabled customers to enjoy 99.9 percent accessibility to Digi's 4G LTE services. This also meant Digi customers are able to enjoy two times faster web page loading, two times faster latency and three times more stable connections. Digi also said they had more than 80 percent 5Mbps speed consistency with 10 times faster LTE relative speed.

Furthermore, Digi is in the works of rolling out Voice-over-LTE (VoLTE) and Voice-over-WiFi (VoWiFi) services to compatible 4G LTE smartphones for customers in 2016. VoLTE will



Christian Thrane (left) and Kesavan Sivabalan answering concerns and questions from members of the media

improve call experiences for customers with higher quality audio, faster call connections and simultaneous use of data, while VoWiFi will help customers enjoy improved indoor coverage.

While during the announcement, Digi also announced the #DigiWeWant4G Twitter campaign for customers to nominate towns to be the next in line for Digi's 4G LTE network rollout. The campaign lets customers highlight locations they wish to enjoy high-speed internet coverage by tweeting the hashtag #DigiWeWant4G and the location name. Digi will then proceed to expand its 4G LTE network to the top 10 areas with the most hashtags. [digi.my/4GLTE](https://digi.my/4GLTE)





Mr Sezai Hiroyuki, Managing Director of Casio Malaysia Sdn Bhd (left) and Mr Sean Wee, Business Relations Executive, Casio Malaysia Sdn Bhd holding the Casio XJ-V2

# Casio Malaysia Launches the XJ-V2 Lamp-Free Projector

Casio upgrades their "Core" series line up to bring better power saving and higher brightness to classrooms and offices

Casio upgrades their "Core" series line up to bring better power saving and higher brightness to classrooms and offices.

Casio Malaysia announced the release of the XJ-V2 projector, a new addition to the brand's "Core" line up of affordably priced, next-generation mercury lamp-free projectors. Projecting images and videos with an enhanced brightness of 3,000 lumens, an upgrade from its predecessor's 2,700 lumens, without compromising on environment sustainability.

The use of the Laser & LED Hybrid light source helps to prolong the projector's usability and lifespan to up to 20,000 hours while still

reducing overall energy consumption by half. By going lamp-free, there is also no need to worry about routine maintenance brought about by wear and tear as mercury lamp projectors would require. This in turn, reduces the total cost of ownership greatly in the long-term.

The XJ-V2 is capable of projecting full brightness images within 5-8 seconds of powering on, and powers down immediately without a cooling down period. With its compact and light design the XJ-V2 can be easily installed and conveniently mounted onto conventional universal mounts, without the hassle of additional heavy construction work.



Comparing the power consumption while on eco-mode on the lamp-free Casio XJ-V2 (left) and a conventional lamp projector (right)



Sean Wee, Business Relations Executive, Casio Malaysia Sdn Bhd explaining the dust-resistant capabilities of the Casio XJ-V2

Furthermore, the XJ-V2 sports a dust-resistant design that keeps its interior clean for optimal performance.

The native resolution of the XJ-V2 is 1024x768 but can be up scaled to a maximum of 1600x1200, and input wise the projector features HDMI and component as well as an audio input and output. While for those who may find 3,000 lumens too bright for usage, the XJ-V2 features 5 different levels of eco-modes to reduce brightness and at the same time lower power consumption.

The projector is available at all Casio Authorised Retailers from January 2016 onwards for a promotional price of \$699 (RM2,946).

<http://world.casio.com/>

# Canon Malaysia Announces Availability of New PowerShot G Series Cameras


Shoot compact with Canon's new array of point-and-shoot cameras

Canon has recently announced the availability of two brand new PowerShot G Series cameras, in the form of the Canon PowerShot G5X and the PowerShot G9X. Both cameras are built with the latest Canon imaging technology and come with a large 1.0 inch 20.2 megapixel CMOS sensor that renders higher sensitivity for superior image quality.

With ease of use in mind, the G5X and the G9X feature optimised button layout, and an easy to use interface that utilises a touch screen display for easy adjustments to settings like ISO, aperture and such. Powered by Canon's DIGIC 6 image processor, both cameras also feature Canon's High Sensitivity (HS) system to provide photographers with high performance point-and-shoot cameras that are capable of taking great photos in any type of lighting condition, with an ISO count that goes up to 12,800.

The PowerShot G5 X uses a 24-100mm (35mm equivalent) 4.2x optical zoom lens, while the PowerShot G9 X uses a 28-84mm (35mm equivalent) 3x optical zoom lens, which provides users with sufficient range to shoot near or far. Not only that, the circular 9-blade composition and large apertures of f/1.8 and f/2.0 on the PowerShot G5 X and G9 X respectively, enables beautiful bokeh (blurred background) effects in macro photography.

For the first time in a PowerShot G series camera, the PowerShot G5 X is equipped with a built-in Electronic View Finder (EVF), that

has a high resolution of 2.36 million dots similar to the colour gamut from a computer monitor (sRGB). With this, users can take vibrant photos without the need to do too much post-processing off the camera, as the colours shown on the EVF are a representation of what the photo will look like out of the camera. As an added convenience, the EVF was optimally designed with the eye point of 22 mm to ensure comfort even for bespectacled users. 

[www.canon.com.my](http://www.canon.com.my)



Canon PowerShot G9X



Canon PowerShot G5X





Lee Jui Siang, Vice President of Mobile, IT and Digital Imaging, Samsung Malaysia Electronics (back row fifth from the right) and Justin Joo, Business Manager of Mobile, IT and Digital Imaging, Samsung Malaysia Electronics (back row fifth from the left) having a great time with local celebrities after their rigorous fitness challenge

# Gear Up And Move Out

A fun-filled exciting day drenched in sweat, Samsung Malaysia Electronics is jumping on the fitness hype train

Samsung Malaysia Electronics introduced its new Gear S2 smartwatch while exhibiting how a fitter lifestyle can be adapted seamlessly into everyday routine through the Gear S2's features and functions. Held in Kuala Lumpur, the fitness movement took place at Jatomi Fitness, The Weld which entertained media members and celebrity friends with exhilarating fitness challenges.

Speaking at the session, Mr. Lee Jui Siang, Vice President of Mobile, IT and Digital Imaging of Samsung Malaysia Electronics shared, "Wearable technology is one of the most exciting developments in consumer electronics industry, not to mention a fast-growing fitness trend among consumers. With the Gear S2, we want to encourage people to gear up in making their health and fitness more achievable. This is an opportune moment to introduce a gear that

will help wearers achieve their goals, both in and out of the gym!"


The Gear S2 sports a circular face with a unique rotating bezel that makes navigation interesting. Just by rotating the bezel you will have access to your fitness status and applications. While the Gear S2 has distinct health functionalities, the wearable is more than just a fitness tracker. Wearers can constantly stay connected to social media, get instant work notifications, and streamline their mobile life in variety of ways.

The Gear S2 is available in two variants, Sport and Classic, Samsung tailored the Gear S2 to fit the needs of different consumers. The Gear S2 Classic are for users that want to be classy with an emphasis on style and fashion. Sporting an elegant black finish and a matching genuine leather band, for that great mix of style



More than just a fitness tracker, the Gear S2 is also a fashion statement with 13 watch faces to choose from, users can coordinate their personalities and outfits together with the Gear S2

and technology. Meanwhile, the Gear S2 Sport is catered to those who are into fitness and constantly on-the-go, featuring a minimal and modern design the Gear S2 Sport is perfect for those with active lifestyles.

They are already officially on sale, and the recommended retail price of the Samsung Gear S2 is RM1,399 while the Gear S2 Classic is available for RM1,599. The Gear S2 is offered in Dark Gray and Silver while the Gear S2 Classic is offered in Black, and the smartwatches also comes with additional changeable straps. 

[www.samsung.com/my](http://www.samsung.com/my)

# HP Announce Seizure Of Counterfeit Ink Contraband In Malaysia

Fake HP ink tanks discovered and seized in raids in Port Klang

**H**P recently announced the seizure of over RM 300,000 worth of counterfeit print cartridges by local authorities in Klang Valley, Malaysia, protecting customers from fraudulent products. The authorities raided two major distributors in late August and seized counterfeit ink cartridges, toner cartridges, packaging and security labels. HP collaborated with local law enforcement to make this action possible, starting with the sale of security labels on the Internet.

HP engages in industry-leading anti-counterfeiting practices to combat the


fraudulent manufacture, distribution and sale of counterfeit HP supplies. Since January 2015, more than 52,000 counterfeit cartridges and components worth more than MYR18.4 million were seized by local enforcement agencies across Southeast Asia.

‘With counterfeit HP print cartridges, customers purchase what they often assume to be a genuine HP product, but they instead receive a cartridge that provides them with an inferior print experience,’ said a HP spokesperson. ‘HP is committed to protect our customers and



*These ink tanks are not genuine, and may cause permanent damage to your printers*

ensure they receive the right cartridge that prints in high quality when they choose Original HP print cartridges.”

HP adopts a proactive approach to help customers identify counterfeit print supplies. An Original HP print cartridge comes with a security seal with color shifting features, a QR code as well as a serial number that can be validated on HP’s website. In addition, the HP Tamper Evident Label on HP LaserJet Toner cartridges responds to heat and water exposure as well as cuts or rips. 

[www.hp.com](http://www.hp.com)

# ADATA Launches The HM900

Big capacities, encryption and data protection, ADATA has it all.

**A**DATA is back again to launch their brand new HM900 external hard drive that’s available with capacities of up to 6TB. It offers convenient content backup, playback and management, all in a highly durable product. TurboHDD technology unleashes the true potential of USB3.0’s bandwidth for fast data transfers, while 256-bit AES encryption ensures robust security.


The ADATA HM900 is a self-powered external hard drive and comes in 2TB, 3TB, 4TB, and 6TB capacities to suit different budgets and needs, providing ample room for large multimedia files and virtually every other type of content, ranging from documents and photos to music and Ultra HD 4K video.

It also boasts a dedicated one-touch backup button that allows for near instant transfer of selected files from a source device to the drive. In addition, it supports simultaneous video recording and playback,

making it eminently easy to enjoy content without missing out on other experiences. Furthermore, the HM900 also supports scheduled backup, auto backup, and multiple-device content sync, all via a user friendly interface.

Embedded sensors protect valuable data against corruption in the event of the drive sustaining a shock due to sudden movement or fall. Should this occur, the HM900 stops drive spin activity to safeguard data, and resumes operations when the shock subsides and users are fully informed when it happens via clear LED indicators.

Leveraging USB 3.0 throughput to its fullest, the HM900 moves large multimedia content rapidly

with TurboHDD acceleration built in. the technology cuts down wait times while data migrates, and drastically reduces loading time when opening applications, games, and other content. 

[www.adata.com/](http://www.adata.com/)







Jimmy Fong, South-East Asia Channel Sales Director, Kaspersky Lab officiating the Kaspersky Cyber Security Summit in Port Dickson

# Kaspersky Regional Security Summit

Kaspersky Regional Security Summit showcases threat predictions for 2016 and a look into the future of chip implants

Kaspersky has recently held its Regional Security Summit in Port Dickson to assess the threat of cyberattacks in the region in 2016, as well as to showcase a regional threat overview that continues to plague businesses, conglomerates and the like for years now. Cyber security is of the utmost importance now more than ever as hackers are starting to become bolder in their attacks, as their methods become even more complicated as well.

To tackle the onslaught of cyber-attacks on individuals, businesses and nations, Kaspersky Labs started a new team of cyber research and analysis team called GReAT in 2008, which stands for the Global Research and Analysis

Team within the R&D department of Kaspersky Lab. The team's focus includes detecting and preventing Advanced Persistent Threats (APTs), infrastructure, banking and sophisticated attacks.

## The Hacker Threat

Contrary to popular belief, many of these hackers are actually professional criminals, and not just teenagers with too much time and resources in their hands. These hacker organisations range from hostile nation-states, whose motivation includes spreading political agenda, and going up against other countries whenever political tension arises.

Criminal groups seeking monetary gain are



Vitaly Kamuk, Principal Security Researcher for Kaspersky Labs talking about security threats in the region

aplenty, especially in Europe and Asia where hackers use hacking methods to take money out of ATMs without having to physically brute-force their way to the cashboxes.

Industrial and economic espionage is also a big thing amongst hacker organisations as patents that are potentially worth hundreds of millions of dollars can be stolen to make a lot of money in the black market, or even information on mergers and acquisitions, which allows rival companies to know how much a certain business is being acquired for, so they could offer a better deal.

Of course there are also the activist and enthusiast hackers, who look to spread ideologies by defacing websites of government agencies and such, due to unfavourable policies, and just for the challenge of hacking into a website to test how good they are.

One example of a bank attack is Carbanak. Usually, there is no way for hackers to directly hack into an ATM, so in this case, Carbanak used a phishing method with a Microsoft Word exploit to hack into a bank's internal network. From there, the group used remote ATM access



Kurt Baumgartner, Principal Security Researcher at Kaspersky Lab talks about the perils businesses face against the threat of cyber-attacks



*Serghey Lozhkin, Senior Security Researcher talking about Ransomware and its prevalence in the near future*

from the bank's network and used standard test and control utilities to operate the machine remotely.

These attacks have been going on since 2013 and was detected in the Baltic region, Central European countries as well as the Middle East, Asia and Africa.

The Naikon APT meanwhile had hackers attacking countries that were helping out with the search of the missing MH370. The people in charge of these searches would receive an email, and when the document attached to it is opened, will release a malware into the system that will then feed information back to the hackers.

### Predictions in 2016

In 2016, hackers will try to compromise internal company resources, such as company websites, networks, SharePoint servers and HRMS for cyber-extortions. It is expected that APTs will no longer be the go-to method to hack into company systems as they move to memory-resident or fileless malware, similar to the SuperFish malware.

Hackers will also look to repurpose off-the-



*Rainer Bock, Head of Strategic Projects, Corporate Communications at Kaspersky Lab explains Kaspersky's involvement in the human implant project*



*Hannes Sjoblad, implant specialist extols the virtues of having an NFC implant inside you*

shelf malware and commercially available RATs as there are a surprising number of security systems that still have not been patched to avoid these malware from going through their net. This is also due to the fact that these old malware have a low initial investment, but the



*Jesmond Chang, Director of Corporate Communications, Kaspersky Lab APAC getting an NFC chip inserted into his hand*

ROI for such a setup is several hundred times more lucrative.

In Asia Pacific, it is observed that hackers in this region have become more mature, and their attacks have become more focused now, rather than just hacking and defacing websites just because they can do it. It is likely that foreign organised crime groups have recruited these hackers to attack the financial sector of this region, in trying to cripple business transactions, and utilising ransomware to gain leverage over these companies.

Speaking of ransomware, the use of cryptocurrency such as BitCoin is also a big thing these days with hackers. Because the online currency has its own cryptolock that does not allow it to be traced back to its receiver, as everything is done anonymously.

Cyber-sabotage incidents also are expected to be on the rise as competitors look to have

the upper hand over the competition by any means necessary.

### Is Bio-Hacking The Future?

One of the more interesting things that was shown at the conference was NFC chip implants, which Kaspersky calls Bio-hacking. It is a concept where a small NFC chip is implanted directly into the skin of the user, and in theory, should allow him to do a variety of nifty, and hopefully in the future, useful things.

The NFC implant itself is made from a type of unbreakable glass, similar to the ones used in aeronautical and space vehicles, so it is definitely safe to be implanted in humans, with very little concern when it comes to breaking.

Right now, the NFC implant is capable of doing things like transferring data like business cards and such, but in the future, it is expected that these implants will be able to replace items such as credit cards, car keys,

and even function as identification devices that allows you to unlock doors and computers without the need of a key, card, passwords or even biometric identification.

At the moment, there are concerns about bio-hacking as it is still widely believed to be a hackable technology, but so far, it seems that it does not

seem to be the case because the implant itself is not transmitting any sort of data.

It's definitely one of the things we're looking forward to in the near future, seeing as to what it's already capable of doing now. 🇲🇾

[www.kaspersky.com](http://www.kaspersky.com)






# Intel Is Getting 49 New CPUs


The Skylake processors are suitable for the masses – and now come in several notebooks

Intel's new processor generation, Skylake, is going to be available for the masses right on time for the approaching Christmas business: the manufacturer recently displayed 49 new CPUs including 28 mobile processors at the IFA technology fair in Berlin. Skylake brings with it only moderate performance for pure computer operations, but for this, it has a considerably faster graphics chip and uses less electricity, which meets the requirements of notebook users. Intel's target is precisely these users: in the presentation, the manufacturer estimated that one million PCs and notebooks are more than three years old now and will be replaced soon accordingly.


Intel has always covered the gaming market for itself, as seen with Intel's first overclockable laptop processor – a quad core i7 with an unlocked multiplier. The first laptops with Skylake are also available now: Acer and Toshiba have already shifted their entire range to the sixth core generation, and other manufacturers are following one by one. Alienware is offering some gaming notebooks a free upgrade to Skylake. The new processor generation is also integrated in desktop PCs, all-in-ones (e.g. the new Asus Zen AiO S) and servers. Skylake also supports Thunderbolt 3 and USB 3.1 – thus, multiple 4K monitors can be connected or mobile devices charged using only one cable. 




## Pension Due To WLAN Allergy

The fear of damage to health caused by electrosmog and mobile phone radiation has so far been an irrational one – but the 39-year-old Frenchwoman, Marine Richard, was recently awarded a disability pension by the court. She argued that the WLAN caused her headaches and backaches and won the case. The government now pays her RM3,734 per month. Richard has been living as a recluse without electricity in a stone hut for a year and a half. She says she's getting better there now. 

## The first Blu-ray Player With Ultra HD

Samsung unveiled the first Blu-ray player with Ultra HD support at the IFA. Contents with a lower resolution are upscaled to 4K. The player will hit the stores only in early 2016; a small selection of UHD Blu-rays with correspondingly sharp films will probably be available anyway by then – for around 30 Euros. Besides the UHD Blu-rays, the player also plays 4K streams. Competitors such as Panasonic are soon going to offer similar products. While the manufacturer has not yet said anything regarding the price, it is rumoured to be RM2,333. 


## Samsung, Huawei, ASUS: Smartwatches Are Trendy

Huawei presented its first smartwatch in Berlin with a competent support: the chief editors of the Italian edition of Vogue and the French edition of GQ came to praise the fashionability of the smartwatch. There was fashion show as well. Design is now extremely important to smartwatch makers, the new gadgets no longer look so clunky, and leather and metal wristbands are now standard. Samsung has slimmed down its Gear 2 and got rid of pointless extras such as the camera on the strap. In addition, the operation has been improved. The small touchscreen is now supported by the rotating border, the bezel. Huawei, with its watch, intends to score with its powerful battery, which is estimated to last a day and a half – so far the second major weakness of smartwatches. However, these smart watches are still expensive, with few priced below RM1,400. However, this isn't the case with ASUS: its Zenwatch 2 is expected to cost only around RM700, and even the battery life is said to be two days. Little else is known about the smartwatch. But they all have one thing in common: thanks to the new version of Android wear, the watches also work with iPhones. 




PHOTOS: REUTERS/HANNIBAL HANSCHKE (SMARTWATCH); MANUFACTURER (S)

## AMD Displays Graphic Wonders Despite Crisis


**A**MD's second-fastest graphics card is a Radeon Nano shrunk to 15 centimetres in length. Its size makes it ideal for mini PCs, especially since the card keeps up with bigger specimens in terms of performance: in benchmarks, it has trounced even the top models of the previous generation by a significant margin and is beaten only by its older brother, the Radeon Fury X. The mini card for RM3,267, however, has a small target market and won't help AMS get out of the crisis. The group recently spun off its new Radeon division, which will soon work independently. 

## AVM Gifts Old Laptops With Fast WLAN

**T**his year, a USB adaptor that helps provide old laptops with fast internet access by virtue of having the ac-WLAN USB port was one of the IFA highlights of AVM. The stick is available immediately and costs RM228. AVM is also advertising the smart home via the landline: the new model, Fritz-Fon C5, on its colour display, can display images of an IP camera at the front door. DECT remote switches can also be operated using it. The C5 hits the markets in October and will cost roughly 80 Euros 

## iOS 9.1, TV OS, Watch OS2: Apple's New World Of Operating Systems

**T**he new iPhone and the Apple TV set-top box were indeed the stars of the Apple keynote in early September, but Apple is rolling out three more huge software updates this month as well: iOS 9.1 isn't only getting the iPhone several new emojis (including the finger), but also a more personalised Siri, which can now be configured to the device owner's voice. Microsoft's voice assistant, Cortana, is already offering a similar feature. Moreover, iOS 9.1 supports the Apple Pencil and the input method, 3D Touch. The updated Apple TV box is also getting a new system: TV OS will be predominantly controlled with the help of Siri. For instance, the assistant displays subtitles upon request if you haven't understood a dialogue. Siri is also expected to improve the Apple Watch: in Watch OS 2, the voice assistant understands a considerably more number of commands. Furthermore, the watch is connected to an Apple ID, which makes it rather unattractive for thieves, and developers can, for the first time, create native apps for the smartwatch. In addition to this, the watches also have new dials. Only in the MacOS update El Capitan, which is being distributed now,

does Siri have no role to play. This update contains numerous improvements in the foreground, the most important being the new graphics feature, Metal, which will improve the overall performance of MacBooks – roughly tenfold in games. 




## NVIDIA GRID 2.0 Launches in South East Asia

**N**VIDIA today announced the availability of the NVIDIA GRID 2.0 virtualisation technology here in South East Asia at the vForum Singapore event. The performance, efficiency and flexibility improvements in the latest release of NVIDIA GRID mean enterprise businesses around the globe can now deliver even the most graphics-intensive applications to any connected device virtually.

With NVIDIA GRID 2.0, employees can work from almost anywhere without delays in downloading files, increasing their productivity. IT departments can equip workers with instant access to powerful applications, improving resource allocation.

NVIDIA GRID 2.0 integrates the GPU into the data centre, improving overall workflow performance by doubling user density over the previous version, allowing up to 128 users per server. This enables enterprises to scale more cost effectively, expanding service to more employees at a lower cost per user. Using the latest version of NVIDIA's award-winning Maxwell GPU architecture, NVIDIA GRID 2.0 delivers twice the application performance as before, exceeding the performance of many native clients.


'We see tremendous opportunity for graphics-accelerated virtual desktops in businesses such as manufacturing, oil and gas, government, and higher education across Singapore, Malaysia, Indonesia, and Thailand,' said Ivy Rayner, Senior Director Enterprise Business, Asia Pacific South, Worldwide Field Operations, NVIDIA. 






# Windows Is Snooping On You

Microsoft collects data even in Windows 7 and 8 – and forces its users to update to Windows 10 via background downloading

Microsoft, through two updates, has now extended its data collection frenzy even to Windows 7 and 8. With this, these systems transfer the same information about the user behaviour, as Windows 10 is already doing – for instance, started apps or search terms in the Edge browser. The good: updates can be removed and prevented from being reinstalled. The bad: Microsoft has installed the spying updates without any notification. Up until recently, it was just as secret that the maker downloads the installation files for Windows 10 on any PC with Windows 7 and 8 – only if its user wants the new operating system at some point. This isn't only a question for a couple of small files, but roughly six GB of information – a huge load for older laptops with small SSD hard drives. The files are saved in a hidden folder '\$Windows-BT', which you can delete. However, the files will be downloaded during the next update. This business conduct has annoyed developer Christian Taubenheim so much, that he is revising his tool xp-Antispy for Windows 10. With this, Microsoft's relentless collection of data can be pruned out with just a few mouse clicks. But it can't be prevented completely. Windows still continues to gather fundamental usage data. 


## Asus VivoStick: Windows 10 via HDMI

A real PC can now fit in a small HDMI stick. Asus has packed an entire Windows 10 on its VivoStick. This can be plugged into the monitor or TV. The stick contains the necessary albeit simple computing power: a Cherry Trail mobile processor by Intel, 2GB RAM and 32GB internal memory. A WLAN, Bluetooth, and even two USB connectors are included for connection to the outside world. Furthermore, the Stick has a classy look. The gadget, which weighs a mere 68 grams, is estimated at roughly RM606. The sales launch is yet to be determined. 

## AMD Replaces Catalyst Control Centre With Radeon Software


About six weeks ago, AMD announced that it is setting up a new organisation within the company called Radeon Technologies Group which will be in charge of everything related to graphics technology. The Radeon Technologies Group (RTG) encompasses a team that is able to capture all the major inflection points in the visualisation and gaming industries like DirectX 12 and Virtual Reality – and is led by graphics industry veteran and architect, Raja Koduri.


This team is tasked with propelling the industry forward by driving performance/Watt with new GPUs, creating innovative new technologies, and making sure the software that supports GPUs work as flawlessly as possible. The RTG's first achievement in this regard is something that is called the 'Radeon Software'. The Radeon Software will be replacing the AMD Catalyst with a modern user interface that is simple and clean, is intuitive to use, and has a significantly faster start up than its predecessor, with a new software iteration called Radeon Software: Crimson Edition.

On top of support for features that are already in AMD's Catalyst Control Centre, the Radeon Software also has new features such as Game Manager, video quality presets, Social Media integration, simplified Eyefinity setup as well as a system notifications tab. The brand new app replacing the Catalyst Control Centre meanwhile will be named Radeon/FirePro Settings. According to AMD, Radeon Software: Crimson edition will be available for everyone to download before the end of the year, with more details to become available in the coming weeks and months. 




# Canon Creates A 250-megapixel Sensor


Canon has developed a picture sensor, which has a resolution of a whopping 250 megapixels. To clarify: these are gigantic 19,580 x 12,600 pixels – or the 119 times full HD resolution. Canon intends to use the sensor in video cams for crime prevention and in the industry. If needed, clips from a film can be zoomed out sharply. According to Canon, the sensor, equipped with a reference lens, can take a clearly readable picture of the lettering on the fuselage of a flying aeroplane 18 kilometres away. 




## Youtube With Premium Service And Gaming Streams

YouTube intends to join two trends this autumn: first, the portal will introduce a premium service, which should cost approx. ten US dollars per month. Anybody who signs up for a subscription will get all the videos on the portal without advertisements, and additional contents will be unlocked too. The paywall is expected to be rolled out by the end of the year. In addition, YouTube is starting its own streaming service, YouTube Gaming, and intends to compete with the extremely successful Twitch.tv, bought by Amazon. Users can use this platform to transfer their game sessions as streams at any time, and earn money via advertisements. YouTube is also bundling gaming videos on the new platform. 

## Adblock Browser Now Also For iOS

Adblock maker Eyeo has come out with a browser for iOS and Android, which automatically blocks advertisements. The same goes for snooping features and social media buttons. There is also an optional plug-in for iOS 9. 

## Acer's Mini Pc Is Stackable


Acer has introduced a mini PC with the Revo Build, in which each component is located in a module. These can be coupled via a magnetic dock and also used individually, for instance the battery or a loudspeaker. 

## Cable Internet Overtakes Fibre Optic Expansion

The broadband expansion in Germany continues to be a fiasco: according to the trade association, FTTH Council, by the end of the year, only around one percent of all households will have a fibre optic connection. This is disgraceful by international comparison. The political and economic spheres recently committed themselves to a faster broadband expansion. Because since 100 MB/s is now mostly at the end of the road, gigabit connections will be needed in the future in order to manage the expected traffic properly. 



## Nexus 5X Release

According to the information at the editorial deadline, Google's new Android 6.0 reference device will be available from October onwards. The mobile phone, likely to be christened Nexus 5X, is expected to cost RM1,747 with a 16 GB memory and 499 dollars with the 32 GB memory. It is made by LG and offers full-HD resolution (1,080 x 1,920 pixels) on a 5.2-inch screen diagonal. The Nexus 5X will run on the six-core processor, Snapdragon 808 and have 3 GB RAM. It takes photos with 13 megapixels but only has a mediocre battery capacity of 2,700 mAh. A Type-C USB port enables the user to plug in the cable in any direction. At the same time, if rumours are to be believed, a new Nexus 6 by Huawei with a 5.7-inch screen is also expected to be available in the market. 






# Hackers Attack Self-Driving Cars

After attacks on computers in modern cars, hackers are now making a grab for self-driving vehicles

Autonomous cars can be rendered useless with relatively little effort. A researcher simulated various objects such as vehicles in front or curbs, which force the car to react. Jonathan Petit, scientific director of Security Innovation, explains that only a laser pointer and a Raspberry Pi were needed to manipulate the lidar (light detection and ranging) sensors of the self-driving car, which is used to determine distance and speed.

As soon as the laser impulse was synchronised with the sensors, vehicles or other objects could be imitated. It was even possible for Jonathan Petit to create an illusion of movements and distances of up to 350 metres of the car. 'I can record the reflections of a simulated car and move them anywhere,' reveals the researcher. The hack can also do a lot of harm to the sensor, as the vehicle can be hacked to the point that it no longer detects real obstacles.

Since self-driving cars compare and analyse their information gathered from the radar, video camera, ultrasonics and laser, it is still unclear whether deceiving the lidar sensors alone is enough to confuse the vehicle.

The lidar sensor impulses must be uncoded and unencrypted, which makes them an easy target for attack. 



Google's driverless car too uses the vulnerable lidar sensors for its own control



## Data Theft Of The Month

### GERMAN VEHICLE REGISTRATION OFFICE: VEHICLE OWNER DATA HACKED

In hacker attacks on vehicle registration offices in Rheinland-Palatinate and Hesse last June, no owner data was stolen, according to investigators. This can be ruled out „with a very high probability“, says the Frankfurt General Prosecutor's office. The attacks in June crippled almost all the registration offices of the countries affected, since the security systems were turned off.


### MOZILLA BUG DATABASE: HACKERS OBTAIN BUG INFO

Hackers have gained access to the internal fault database of Mozilla. As a result, the hackers have obtained information about security gaps that weren't officially known and have yet to be patched. The attackers used this information to exploit a flaw in the PDF viewer of Firefox actively even before the patch was made ready.


### 1BLU: SSL KEYS STOLEN

After an attack on the German web hosting company, 1blu, it appears that the attackers have also come into possession of the SSL certificates of the customers. The host therefore decided to replace all of its customers' certificates. The criminals demanded 250,000 Euros to maintain the confidentiality of the certificates.

# Trojan Seizes Money Cards Directly At The ATM

The security company, FireEye, has uncovered a Trojan virus, which attacks the operating system of ATMs. If the malware has affected it, the Trojan can pull in the ATM cards, collect them and later passes them on to the cyber gangsters. The ATMs of the companies NCR and Diebold have been affected by this. No "in the wild" versions have appeared as yet, and according to FireEye, it is apparently a first beta version. 

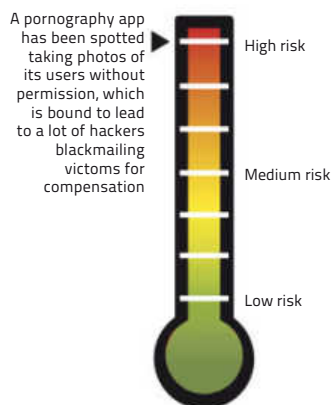
# Malware On New Mobile Phones

Security researchers at G Data are saying that criminals are now installing malware on Android devices before they went on sale. According to G Data, these are isolated cases, which is why the security companies don't suspect the manufacturers but dubious intermediaries and middlemen. Anti-virus systems that get rid of malware provide a fix to this problem. 

# Porno App Secretly Photographs Users

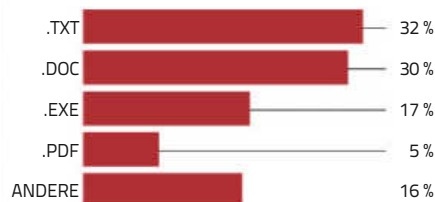
The Android app Adult Player promises erotic videos, but in reality, it is only a rip-off app. The app instead takes photos of the user via the front camera of the mobile phone and then blackmails him with them. Moreover, the app then blocks the phone and demands 500 US dollars for unblocking it. Since the app begins running as soon as the device is started, restarting doesn't help either – the device remains locked. According to the security company Zscaler, the only thing that will help is starting the device in safe mode in order to disable and delete the app using the administrator rights. The app is only available on app stores of third-party providers and not in the Google Play Store. It is highly recommended that you only install apps from the official Play Store. 

## Danger Barometer



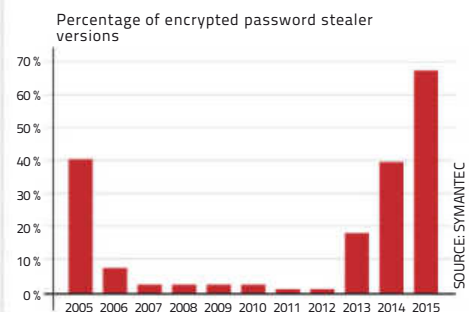
## Dangerous file extensions

A report by Symantec shows that in the distribution of the malware, the file extension ".txt." is used the most as a container.



## Cyber blackmailers bank on encoding

This year, more than half of all Ransomware malware is armed with an encryption technology, which makes it very difficult to get rid of it.



Number of the Month: **250 thousand** Hackers are demanding 250,000 Euros per customer to keep SSL keys private





# E-Contract

*Thanks to advancements in technology, now even contracts can be signed online. In this article we take a look at E-contracts and how they help speed up your business process*

*By Edwin Lee Yong Cieh*

**E**lectronic contract ("E-Contract") is basically a type of contract formed by electronic means rather than through traditional means (such as the exchange of signed written documents). Contracts formed through electronic means (such as over the Internet) are legally recognised as valid and enforceable contracts in Malaysia under the Electronic Commerce Act 2006 ("ECA").

E-Contract is as enforceable and valid as paper contract. The traditional elements on forming contract, namely, offer, acceptance, consideration and intention to create legal relations apply to the formation of E-Contract.

## Formation of an E-Contract

An E-Contract would be formed once a customer makes an offer and the seller accepts the offer electronically. An advertisement on a website will not generally constitute a formal offer. Online sellers should therefore ensure that their terms and conditions state very clearly that the display of an item for sale on a website is only an invitation to treat, unless they can ensure that they have enough stocks to fulfill the orders. The terms and conditions about when the E-Contract is formed should be made clear – for example, when the seller sends back a confirmation email or there is an automated message that confirms that the order has been accepted.

## Types of E-Contract

The 2 most common types of E-Contract are "Click-Wrap Agreement" and "Browse-Wrap Agreement". Of course, the simplest way of sending an email to place an order and replying it with a confirmation email is also recognised as a valid form of E-Contract. The law in this area is still being developed and while the courts have started recognising E-Contract, there are no established legal definitions and rules that dictate how E-Contract should be formed. Understandably, the traditional legal principles on contract should apply, to the extent where it is practical and possible.

## Click-Wrap Agreement

The terms and conditions ("Terms") are provided when a purchased software is installed or downloaded, or when a website is accessed or a service is requested on the Internet. The name "click-wrap" came from the use of the words "shrink-wrap agreement" in boxed software purchases, which contains a notice that "by tearing open the box, the user accepts the Terms of the software". The Terms are usually presented on a separate landing page via a hyperlink next to an "I Accept" or "I Agree" button and are presented on a "take it or leave it" basis – there is no bargaining or negotiation between the

parties with respect to the Terms.

Best practices:

- Require customers to scroll through all the Terms and then take positive action by clicking "I Agree" button or ticking "I Agree" checkbox (left blank by default) before being allowed to proceed to the next step. If possible, offer an "I Disagree" button as well.
- Avoid using words like "I have read, understand and accept the Terms" as this can be viewed as encouraging customers to make false undertaking (customers might not actually read and understand the Terms). Instead, put a statement like "it is important to read and understand the Terms" before or next to the "I Agree" button.
- Ensure that the Terms are visibly and conspicuously displayed in a prominent position with reasonable font size and in multiple languages (for International customer base).
- Place the Terms or a hyperlink to the Terms on the same screen and near the "I Accept" button.
- Allow customers an opportunity to read, download and/or print the Terms; they should not be pressured to rush through the Terms by webpage timeouts.
- Retain a copy of all E-Contracts, including evidence of signature/ authorization/ acceptance of the Terms.
- Copies of E-Contracts must be stored in a form that accurately reflects the information set forth in the agreement agreed by both parties.
- Ensure that the Terms are always published on the website for future and ease of reference.
- Consider offering an easy to read and understandable summary of the Terms.
- Consider highlighting important Terms in a different colour or font size.
- Avoid unreasonable or unfair Terms as those Terms can be struck out by courts.
- Provide adequate notice of the revised Terms and if possible, allow customers to terminate the agreement if they do not agree with the revised Terms.

## Browse-Wrap Agreement

The Terms are usually presented on a separate landing page but requiring no positive action by the users to accept the Terms. The concept is that, by continuing to browse the website or use the service, the users are deemed to have accepted the Terms. The Terms are presented on a "take it or leave it" basis – there is no bargaining or negotiation between the parties with respect to the Terms. Browse-wrap agreement is more commonly used in non-commercial websites that merely provide information or news, where no commercial transaction or activity takes place on the website.

Best practices:

- Ensure that the Terms are visibly and conspicuously displayed in a prominent position with reasonable font size and in multiple languages (for International user base).
- The Terms should be written in a simple and less legalistic language.
- The Terms should state clearly that continued browsing or use of

the service would constitute acceptance of the Terms.

- Allow users an opportunity to read, download and/or print the Terms.
- Ensure the Terms are always published on the website for future and ease of reference.
- Consider offering an easy to read and understandable summary of the Terms.
- Avoid unreasonable or unfair Terms as those Terms can be struck out by courts.
- Consider highlighting important Terms in a different colour or font size.
- Provide adequate notice of the revised Terms and if possible, allow users to terminate the agreement if they do not agree with the revised Terms.
- Try to only use browse-wrap agreement on non-commercial websites because this type of agreement does not provide the same degree of reasonable notice to the users and does not require affirmative action to show offer and acceptance of the Terms.


## Essential Terms of an E-Contract

The Terms must be tailored to the needs of your business. There is no "one-size-fits-all" type of Terms and you should refrain from copying and pasting Terms from other websites. Generally, any contracts for goods or services should address the following essential points:

- The description of goods or services being supplied
- The price and payment method
- The delivery details
- The rights and obligations of both parties
- Exclusion, limitation of liability and indemnification clauses
- The ownership in the content and licenses
- The jurisdiction of which country's law should apply in the event of a dispute

## Overriding Laws

Contracts made online are also subject to the same laws as contracts made offline. Contracts which are unenforceable offline, for example, certain types of contract with children below the age of 18, or contracts which are illegal, immoral or against public policy, will similarly be unenforceable online. If the online sellers collect personal data in the course of transactions, the website should also contain privacy policy, privacy statement/notice and consent form in compliant with the Personal Data Protection Act 2010.

Even if there is a clear choice of law and jurisdiction clause, this may not necessarily prevent courts in other jurisdictions from hearing the dispute if they feel that their customers are being targeted by the online seller's website. As such, the good practice would be to ensure that the online seller complies with the laws of countries where he carries on his business or excludes orders from countries which he does not carry on his business. 

*The view expressed in this article is intended to provide a general guide to the subject matter and does not constitute professional legal advice. You are advised to seek proper legal advice for your specific situation.*





Simon Whitford, Senior Regional Marketing Manager, Asia-Pacific, Western Digital

# The Age Of Cloud

*We talk to Western Digital, and their plans for the cloud* By Nazrin Zain

**WD has been at the forefront of storage technology, be it for PCs, servers and recently, cloud storage as well. How has the company's storage technology storage grown over the past few years?**

WD's suite of storage solutions have grown larger over the years to cater to wider market needs today. Adding to WD's family are the My Cloud range of cloud storage devices – from My Cloud and My

Cloud Mirror designed for consumers to the My Cloud Expert & Business Series created for prosumers and SMB – all these come with the easiest setup on the market that anyone can set it up easily.

The My Passport external storage product range has also added new members such as the My Passport Wireless Wi-Fi enabled portable drive and the My Passport Pro portable Thunderbolt bus powered RAID storage for the creative professional on the go.

WD simplifies the decision making process by employing color-coded drive selection to enable customers to easily choose the right hard drive designed for their intended application – WD Blue for everyday computing, WD Black for performance and power computing, WD Red for NAS storage, WD Purple for Surveillance storage, and gold label for WD Datacenter storage.

**What are some of the products that WD has in store for professionals who require their own in-house cloud storage system that they could access from outside the house or office?**

For creative professionals, WD offers the My Cloud Expert Series to save all their valuable work plus their photos, videos, music and files on this ready-to-go, high-performance NAS solution. This product enables secure access to data anytime, from anywhere to anyone the owner allows access. Owner is also able to protect content with multiple backup options, customize the NAS with a full suite of apps and enjoy peace of mind knowing that all your precious digital content is securely stored and backed up.

Our award-winning My Cloud app allows consumers to securely access and share files from anywhere with computers, tablets and smartphones and also automatically backup their camera roll on their mobile devices.

**Personal cloud systems can be quite complicated to use sometimes, but WD has recently announced the new WD My Cloud OS3 as an easy to use cloud operating system that's feature-packed, but easy to use. How has the adoption rate been so far for it? Do WD's older NAS systems support it?**

Setup and use is an area WD has done a tremendous amount of work; in fact my 8 year old son has set one up, so I believe anyone can do it too. The My Cloud OS 3 software and apps are available free for both new and existing WD My Cloud users. This is our commitment to our consumers in offering an enhanced yet user friendly experience towards managing their data via personal cloud.

As of August 2015, we have recorded more than 5 million downloads on our My Cloud app.

**In your opinion, what is currently the trend with consumers these days as far as storage is concerned? Are they adopting the cloud as a means to store data such as photos, music and videos?**

Gartner Research said in 2011, only 7 per cent of consumer's content is stored in the cloud but this is expected to grow to 36 per cent in 2016. Cloud storage consumption will continue to grow as consumers used it as their primary or secondary source of storage backup, despite the concern over the matter of privacy and security towards their personal data.

**With the advent of 4K videos upon us, video files are getting bigger and bigger every day. How is WD looking to cope with the need for more high capacity storage? Does video encoding technology need to improve in so that video files aren't always so unnecessarily large?**

My Cloud is a key part of this issue even streaming 4K will not work with current internet infrastructure in many countries, so being able to download and securely store for later use will become the norm until bandwidth is fast enough.

WD will continue to expand its drives' storage capacity to meet the growing needs of consumers, one current product available in the market designed to handle data-intensive workload is the My Book Pro, capable of daisy chaining up to six devices offering 72 TB of storage (6 x 12TB My Book Pro's). Ideally, it would bring significant advantages if video encoding technology was to be able to produce high quality video files yet only consuming a small storage space, this would mean more digital content can be created, stored and enjoyed for every TB produced!

**WD has acquired other storage companies such as Hitachi Global Storage Technologies, and Silicon systems. With its latest acquisition of SanDisk, is WD planning to fully enter into the SSD space as well?**

Unfortunately we are not able to provide more information on these as most are still under US regulatory approval. But we will definitely share it with the media once we have any official announcement on this matter.

**Small companies and businesses in Malaysia and around the region are already looking to embrace cloud storage as the future. There is concern however about which cloud service they should choose, either public or private. What are some of the things they would need to consider before making the jump?**

Some aspects businesses can / should consider prior to embracing cloud storage would be:

- i. Reliability of the public / private cloud storage provider in mind
- ii. Comparison of cost between utilizing a public cloud storage service versus owning a private cloud – breakdown the cost of comparison to cost per GB incurred
- iii. Privacy and security concern – which form of cloud service offers better security protection and total ownership of data once it is uploaded unto the cloud?

**Does WD have any public cloud services on offer, or will be offering in the near future?**

WD offers its suite of private cloud offerings which is the My Cloud range of products for consumers and businesses. Our core focus is to continue improving our consumer experience with the My Cloud, enriching their cloud storage experience with new added features and functionality.

**What are some of the solutions that WD has to offer these businesses if they decide to go with a small private cloud system?**

Organizations can consider using the My Cloud Expert or Business Series NAS, it is an all-in-one, high-performance NAS solution equipped with a suite of software and apps designed for reliability, security, and scalability to meet the needs of small businesses.


**2015 has seen a lot of users, both consumers and businesses adopt the cloud as a primary means of storage. Has this affected or improved WD's standing in the storage industry?**

By October 2015, WD had sold more than 1.6 million My Cloud products while My Cloud application was downloaded 5 million times worldwide, this means more than 3 users are using each My Cloud, so it's being used for what it was designed for. The move by consumers to adopt mobile computing with limited storage presents an opportunity as consumers continue to be concerned over the security and ownership of their data stored in the public cloud.

**Following that, what are some of the trends that you see happening in the digital storage industry in 2016?**

Digital storage demand will contribute significantly to the utilization of cloud storage technology. Big data, BYOD, enterprise mobility and end user computing are among the factors contributing to the growth of cloud storage adoption.

This will imply a change in the IT infrastructure from consumer to organizational level, driving the need for more cloud storage services or total ownership of NAS devices to protect sensitive information.

As technology improves so do file sizes, we are only at the beginning of the data demand phenomenon and as you can see with Western digital's recent acquisitions and broad product line up we are well placed to take advantage of what the future may bring. 



# Technilexicon: 5GHz LTE

*Telcos are looking for more bandwidth for LTE. With the licence-free 5-GHz band, it appears they've hit paydirt, with the downside of disrupting Wireless LAN connectivity*

By Markus Mandau

**M**obile communications cost a lot of money. In addition to paying for the establishment of the network, providers also have to exclusively reserve a frequency range for the communications. They must pay SKMM a lot of money to licence this frequency range. This involves large sums of money because the frequencies that are suitable for mobile communications are becoming scarce.

To free themselves from all this trouble, mobile communication equippers and providers like Ericsson, Nokia and Telekom (for T-Mobile in the USA) suggested last year that LTE should be expanded to cover frequencies that do not require licensing. Their expansion plans are called LTE-U ('U' for unlicensed) and LAA-LTE (Licence Assisted Access). This bifurcation is necessary, as different regulations apply throughout the world: LTE-U is for the USA, China and India. LAA-LTE is supposed to be rolled out in Europe and Japan from 2016 onwards.

These frequencies are kept free for transmission technologies for which the use of a licensing model does not make sense, which includes Wireless LAN. The companies belonging to the Wi-Fi Alliance that manufacture routers for wireless home networks fear that LTE would then slow down the WLAN. Their routers transmit in frequency ranges of 2.4 and 5 GHz. The 2.4 GHz band has such a small amount of space that it's out of the question.

The crux of the matter is that the current ac-WLAN requires broad frequency sections to attain its maximum speed. A new generation of ac-routers is advertising itself using the keyword 'Triband' or 'Wave 2', and offers gigabit-level speeds. These devices commandeer the 80-MHz or 160-MHz domain, while n-WLAN is associated with the domains of 20 and 40 MHz. LAA-LTE will now siphon off at least 20 MHz from the 5-GHz domain.

This becomes particularly problematic in cities in which a dozen or more WLANs frequently overlap with each other. Furthermore, the weather radar also intersects with a part of the radio band – And it always has primary access to that bandwidth.

## Small Radio Cells Strengthening LTE

LAA-LTE is not supposed to transmit on the WLAN frequencies on a permanent basis; it is only supposed to do so if specific requirements are fulfilled. In this regard, it makes use of an option that was introduced with LTE-Advanced: Secondary cells (such as those that are in the form of so-called small cells) can support the transfer of data from the transmitting mast, which is the primary cell.

The primary cell then synchronises the radio transmission with the secondary cell and ensures that all data packets arrive in a proper fashion. However, when it comes to LAA-LTE, secondary cells are supposed to serve as download accelerators, and not signal enhancers,

since they use additional bandwidth in the unlicensed 5-GHz domain.


A channel of at least 20 MHz is expected to be used, which would speed up the download by 150 MBit/s. The primary cell simultaneously transmits in the licensed domain. In the second phase, LAA-LTE is supposed to use the secondary cells to provide an additional upload function. LAA represents a technological challenge, because as far as Europe is concerned, one cannot simply go on transmitting in the unlicensed domain.

## Listen First, Then Transmit

The principle 'Listen before talk' (LBT) applies to WLAN frequencies in the EU and Japan. Routers keep running checks to find out which channels are currently hosting a transmission, and wait until the transmission has been completed. Only then do they begin their own data transmission operation. This principle is not used in the USA and China.

This is also associated with the difference between LAA-LTE and LTE-U. In case of LTE-U, the suppliers and providers handle this operation on their own. As far as the EU is concerned, the LBT principle first calls for a change in guidelines. This is currently being worked on, and should be finalised in early 2016 as LTE Release 13. Ericsson and the chip manufacturer Qualcomm have made suggestions about what the situation could look like (see bottom part on the right) if WLAN routers and mobile communication cells started regulating the data traffic on their own.

The so-called Clear Channel Assessment (CCA) is of decisive importance. It ensures that the LBT principle is also followed by the mobile communication domain. In the CCA process, the secondary cell checks whether the channel is free every 20 microseconds. Only then does the transmission of no more than one LTE frame begin; this takes up to ten milliseconds. The secondary cell pauses for 34 microseconds, and then runs the CCA check again. WLAN routers also have such a mechanism, but it uses different time intervals. In this case, a back-off algorithm is used. It checks whether a radio channel is free at different intervals.

Depending on the network, this can result in the WLAN being slowed down. Google carried out a simulation associated with LTE-U, and the company identified two points of friction: Since WLAN routers and secondary cells run checks for channel availability at different intervals, conflicts can arise. And some WLAN signals are too weak for the secondary cell to register them as a data transfer. In such a case, the secondary cell prematurely starts transmitting via LTE, and the WLAN packet that arrives is defective. The testers concluded that both cases apply to LTE-U, but that they will not necessarily apply to LAA-LTE 



# LTE-expansion LAA

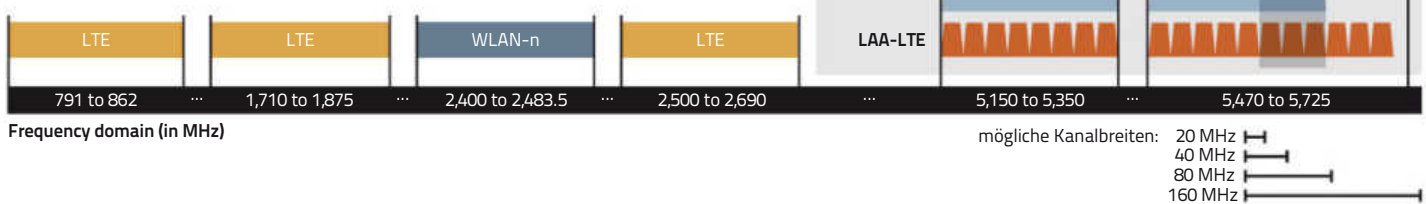
The Licence Assisted Access (LAA) projects aims to expand the fast LTE mobile communication system, so that it will be able to transmit in the 5-GHz domain from 2016 onwards. The domain is currently being used by WLAN transmissions. Consequently, new traffic rules are supposed to avoid conflicts between LTE and WLAN.

The Ericsson RBS 6402 (right) is a small cell that will be released at the end of the year. It transmits in the 5-GHz domain in accordance with the LTE-LAA principle.



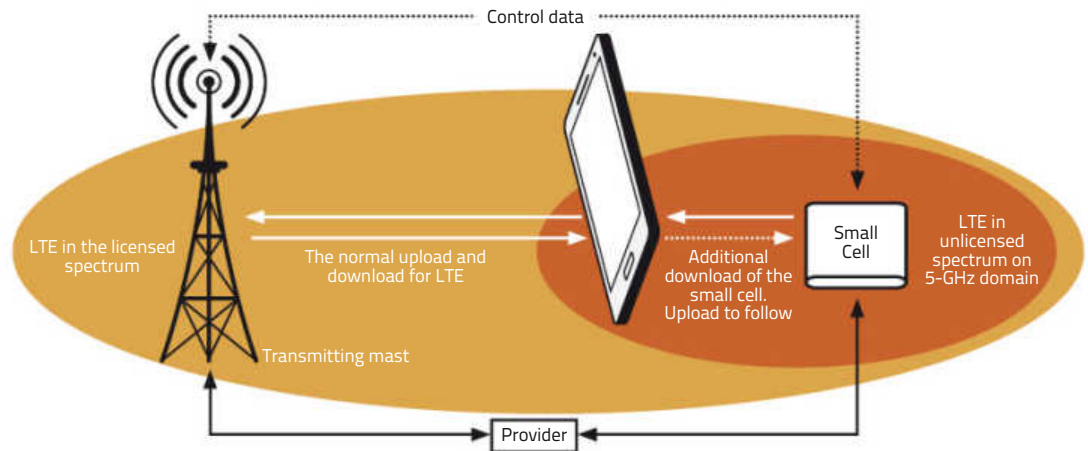
## Pushing and shoving in the 5-GHz band

The 5-GHz domain offers enough frequencies for multiple WLAN routers to come to an agreement and transmit through various channels (from 20 to 160 MHz). In the future, 20 MHz will be siphoned off for each small cell for LAA-LTE, and this will lead to problems. Everyone has to watch out for the weather radar, which takes priority.



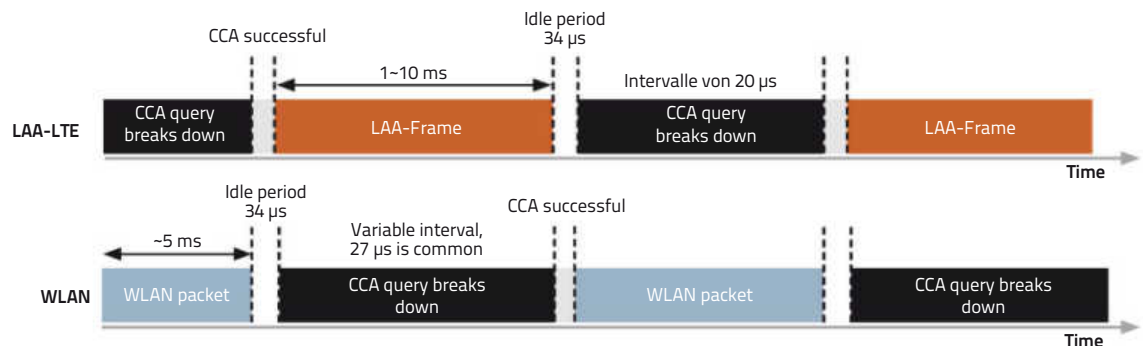
## LAA-LTE in action

The radio communication between the smartphone and the transmitting mast takes place in the usual fashion. In the 5-GHz domain, LAA-LTE only transmits via small cells. The LTE mast synchronises the data traffic. LAA currently only features a download function. The upload function will come later.



## Traffic rules for WLAN and LTE

LAA expands LTE to include the Clear Channel Assessment (CCA). In CCA, LTE checks whether a channel is free every 20 microseconds ( $\mu$ s). If it is, LTE transmits one frame and then runs another check. WLAN has a similar system, but uses different intervals.



**CCA** Clear Channel Assessment checks whether a channel is free



### Mobilcom-Debitel

Rentable solutions with security service and a secure cloud memory



### RWE

Easily-expandable smart home solutions for power, heat and security



### Somfy TaHoma

All-round smart home supplier with a large selection of yard gates and garage doors



### Qivicon

Common standard of Telekom, Miele, Samsung and other service providers



### HomeMatic

Full-service provider with flexible solutions for light, power, weather protection and security



### HomeWizard

Pre-installed window shades, along with power, weather protection and heating control systems

# Choosing The Smart Home System For You

*Smart home systems let you make your entire home intelligent and efficient. This is very beneficial in terms of comfort and security*

By Robert Di Marcoberardino

The garage door opens at exactly 1800 hours every evening, the room temperature in the living room can be specified from the office, the lighting automatically regulates itself in accordance with the position of the sun, and you can use a smartphone app to pre-heat the oven when you're on your way home.

Home automation has a variety of applications. It makes sense to think about whether you want to link your home with intelligent technology, especially if a new home is being built or the old one is being renovated. Full-service providers such as Somfy TaHoma and HomeMatic serve as one-stop shops for all the respective functions (from smart front doors to networked thermostats). Service providers such as RWE SmartHome

and Qivicon offer low-cost bundled packages (security, heat) for subsequent installation.

However, once you decide to go with a particular smart home service provider, you have made up your mind. This is because of the wireless standards, which are in a state of uncontrolled growth. The most diverse technologies are used across the globe, such as Z-Wave, ZigBee, EnOcean, KNX RF and Bluetooth LE. In this part of the world, most of the large service providers transmit using BidCoS. This standard was developed by eQ-3, which is the parent company of HomeMatic. Nevertheless, the products made by different service providers are not automatically compatible with each other. By the way, WLAN is hardly

## Smart Home Specialists

Many manufacturers now offer small, self-contained home automation systems that focus on fewer applications (such as light or security) and feature a simple activation process.

used for home automation, on account of its high power consumption: It would quickly drain the batteries installed in several components.

### A Step Forward Towards Compatibility

Qivicon represents a coalition that currently contains 13 manufacturers, who are making their smartphone applications compatible with each other. The group includes Telekom, Miele, Samsung, Osram, EnBW and Vattenfall.

The core of the system is the Home Base (ca. 200 euros): It works with BidCos, but it can be expanded via USB to include other wireless standards (e.g. ZigBee). The box is connected to the router, and the systems are usually operated via smartphone and tablet apps.

The available products include motion detectors, switchable sockets, thermostats, IP cameras, ovens, washing machines and controllable lamps. Bundles are also available, and they usually consist of the Home Base and end devices that are geared towards a specific purpose.

For example, RheinEnergie offers a package containing power, heat and security applications (about 300 euros each). And Telekom offers an 'Energiesparpaket Basic' (basic energy-savings packet; ca. 160 euros), which consists of a radiator thermostat, a door- and window-contact, wall switches and adapters with power measurement facilities. However, the Home Base has to be purchased separately.

RWE relies on a separate smart home system, which currently encompasses about 20 products for power and heating regulation. The product portfolio also contains useful flush socket system for the hidden controlling of light conditions and roller blinds (from approximately 60 euros onwards). As before, there is a smart home control centre that takes over the control system. In addition to the box, the 230-euro starter kit also contains a radiator thermostat, a wall-mounted transmitter and an adapter. A comparable alternative is offered by HomeWizard: This company also provides starter packages, weather packages, heating unit packages and power-related packages. The complete roller blinds that are available for prices ranging from 250 euros onwards represent a unique characteristic of the product range.

When it comes to the extensive product portfolio of Mobilcom-Debitel, the devices cannot be purchased; they can only be rented. The smart home security package costs about 20 euros per month (one-time additional payment: 99 euros). In addition to the home control centre, it features an indoor siren, opening and motion detectors, a video camera and a remote control. Along with all this, the package also includes a 24-hour security service, allowances for co-payment in the event of an insurance case and a secure cloud memory.

On the other hand, HomeMatic and Somfy TaHoma are among the full-service providers that automate practically all the components of the house. TaHoma has also specialised in access systems such as yard gates and garage doors. An advantage is that if a new home is being built, such systems can, in consultation with the construction company, be integrated in an intelligent and unobtrusive manner. However, retrofitting operations are not as comfortable as the ones involving other solutions.

### Smart Homes In Malaysia

Whilst such smart home solutions aren't exactly available yet in Malaysia, there are already some products that can be used to somewhat imitate the system here in this country. Some of these include home surveillance systems, smart lighting systems, as well as smart products such as air conditioning units that can turn be turned on based on timers and remote settings. 📺



#### Philips Hue

The lamp series features individual products like the mobile Hue Go lamp (above, ca. 100 euros), as well as several light bulbs (starter kit with 3 LED lamps and bridge: ca. 170 euros).



#### Gigaset elements

The starter kit (from about 150 euros onwards) for the series of anti-burglary protection systems includes a base station, a door sensor and motion detectors. It can be expanded to include cameras, window sensors and alarm sirens (left).



#### Archos Smart Home

The starter pack for the Bluetooth LE system (ca. 230 euros) includes an Archos tablet, two mini-cams (above), two weather stations and two motion detectors.

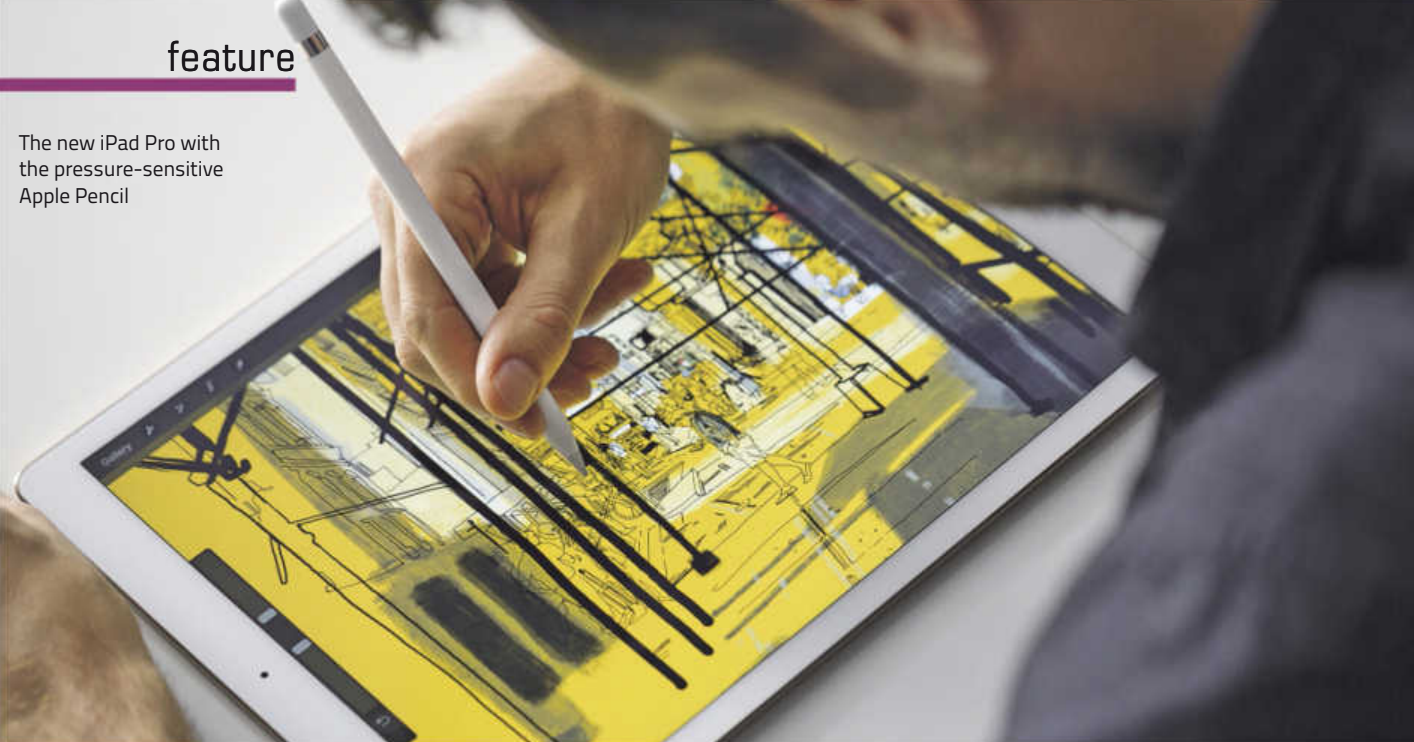


#### Belkin WeMo

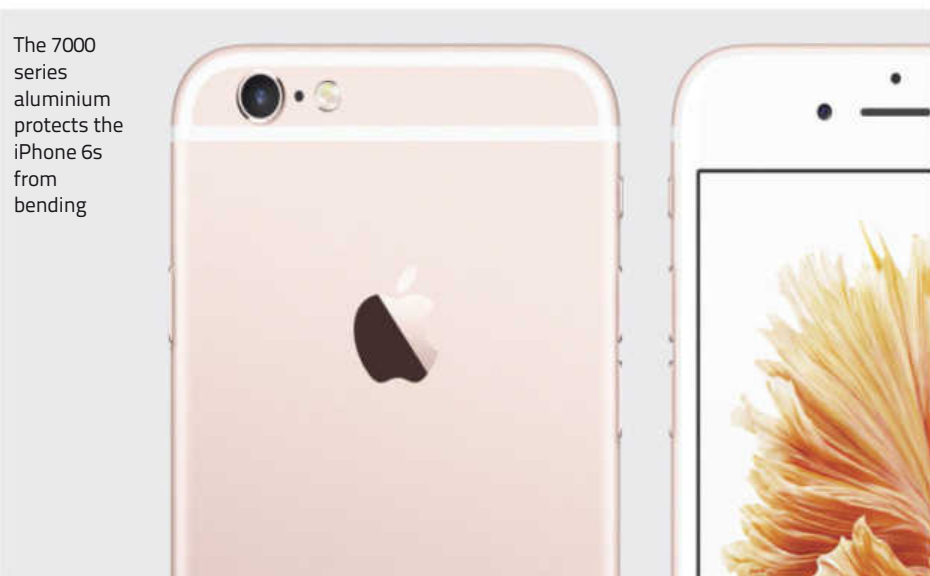
The network equipment manufacturer sells switchable sockets (from 40 euros onwards), network cameras and LED lamps. Since all the devices are connected to the power grid, Belkin uses WLAN (which is unusual in the smart home domain) for transmissions.



The new iPad Pro with the pressure-sensitive Apple Pencil



The 7000 series aluminium protects the iPhone 6s from bending



The new Apple TV is banking on voice control and an app store



# The Pressure Is On With Apple

*3D Touch, Siri in the TV, and a stylus for the iPad: Apple is looking to revolutionise technology control* By Christoph Sackmann



Anybody who has already held the new iPhone 6S is quickly full of praise for Apple's main feature: 3D Touch, formerly known as Force Touch. A technology where the display detects how hard the user presses it and based on this, interprets different commands. Apple has installed only two pressure levels in iOS 9 as it doesn't need any more. With 'peek', a light press, the user can take a look at apps or web links and preview an e-mail, the large image of a thumbnail in the gallery or the website behind a link. Photos on Instagram can be liked, the 'peek' on the Facebook app icon allows users to post their status or upload photos. Pressing a bit more deeply is a 'pop' – it opens what the user has previously seen as a preview: the photo, e-mail or Facebook feed.

This is simple but brilliant, since it makes iOS and apps quicker and easier to manage. This is great especially if all apps supported 3D touch. Initial tests have dispelled the fear that new users won't understand 3D Touch intuitively or could be overwhelmed by it. 3D Touch is not the reinvention of the wheel.

Blackberry offered a touch-sensitive display way back in 2008. Even Huawei has integrated Force Touch into its iPhone rival, the Mate S. However, a difference can be seen here between Apple and its competitor: while the press technology in the new iPhone is integrated into every app and system application, Huawei has so far designed few concrete scenarios for its Force Touch.

It is not without reason that the technology is going to be available only in Asia for now. It looks as though Force Touch still needs to mature at the competition's end, whereas Apple already has a finished product. Chief designer Jony Ive recently stated in an interview, that Apple worked on 3D Touch for 'many, many, many years'. This also includes a tiny detail, the Taptic Engine, a kind of vibration motor inside, which reacts to the display pressure by creating corresponding vibrations in the device – as though it were yielding slightly to the pressure.

In the future, the pressure control may become the new standard in the smartphone industry. The possibilities are endless, the operating concept is too simple, and the influence of Apple is too powerful for other manufacturers to brush aside.

Huawei shows the technical possibilities in a video: here, they placed an orange on the Force Touch display. It could measure the pressure so accurately, that a weighing app showed the exact weight of the fruit.

## Apple Pencil

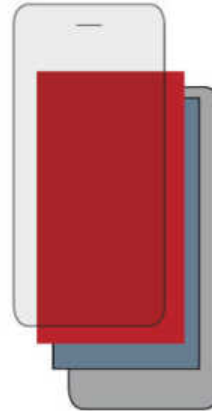
A stylus for the tablet? Nobody needs a stylus for a tablet! This was Apple's maxim under Steve Jobs. However, today there is one: the Apple Pencil. For 99 US dollars. And it is only compatible with the new 12.9 inch large iPad Pro, which costs at least 799 US Dollars. These numbers alone sound unattractive for users, though Apple always surprises by managing to sell even such devices like hotcakes.

In terms of technology, there isn't much to reveal about the Apple Pencil: the Pencil is actually an active stylus pen. This means that the pencil, with its electro-conductive tip, not only activates the capacitive sensors, but simultaneously sends data about its current position and location to the iPad 240 times a second. This allows for a few tricks: for example, the stylus, when tilted, can be used for shading, as though the user were actually holding a real pencil in a slanting position. The tilt sensors in the stylus are what makes this possible. However, the pencil needs electricity in order to transfer

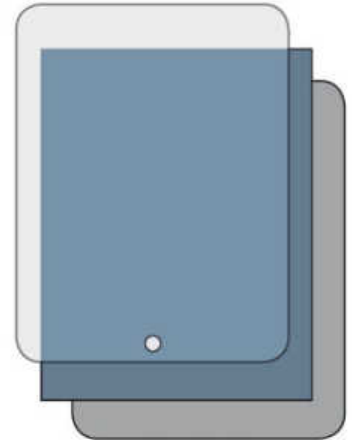
## The iPhone 6S and iPad Pro technology

Only the iPhone 6S and 6S Plus have the pressure-sensitive "3D Touch" technology. An extra layer of pressure sensors registers tiny changes in the distance of the glass cover from the sensor layer. In the iPad Pro, however, the pressure recognition feature is contained in the optional stylus. Using the Pencil doubles the scanning rate of the display from a mere 120 times per second to 240.

IPHONE 6S AND 6S PLUS



IPAD PRO



■ Glass with capacitive touch sensor ■ Display ■ Pressure sensors ■ Case



Founder Steve Jobs at the Macworld 2007 Apple Keynote when introducing the first iPhone

data, which is why it has a lightning connector at its rear end, which is used to connect the stylus to the iPad. A fully charged battery should last twelve hours; and charging for 15 seconds will yield usage of up to about 30 minutes. This is decent for a stylus, which is rarely used continuously for a long time.

However, as good as Apple's integration of 3D Touch in its operating system iOS 9 is, the embedding of the Apple Pencil seems to be just as crude. Of course, it works in the notes app. Apart from this, however, there are few possible applications. So, Apple has joined forces with Adobe and Microsoft. The former integrates the Pencil into its iOS apps such as Photoshop Sketch – it is basically a

drawing app in which the user can test all the options that the Pencil has to offer. For instance, this includes virtual ruler for straight lines. Even fingers can be used as rulers on Touch. Microsoft, in turn, has equipped its iOS Office apps with an inking feature, which can be used to convert handwritten notes and sketches into digital documents. This may sound quite convenient, but if you open such a document without iPad Pro, you'll have a word file with several graphics – this is rather cumbersome.


So, the Pencil is more likely an anticipation of the future. If more apps and particularly, future iOS gadgets support the accessory, it will have a greater purpose. At present, however, the question is: what is the target group for the 100-dollar Pencil? Designer and other creative professionals work mostly with graphic tablets without a screen, which transfer the graphics directly to a monitor. Regular people who only want to make quick notes or sketches, however, don't need such an expensive digitiser. Especially since they can be cleverer about it: Acer, in its new cheap tablet has for instance reduced the touch film screen size to such an extent that the display recognises even the tiniest instances of conductive contact, theoretically, a normal pencil can be used to draw on the tablet. There was no question of software integration in this technology here either.

## Voice Controls In Apple TV

Apple has come up with a new control concept even with its new Apple TV set-top-box. The voice assistant, Siri, is probably going to change the world of the smart TV. Tim Cook, in his presentation, spoke of the 'future of the television'. Apple's ideas here are indeed good and practical, but by no means revolutionary. For instance, Apple provides the option of requesting Siri for 'all James Bond films with Roger Moore' – which the assistant then lists out.

There are two catches to this: first, it works only with Apple's own TV service, iTunes, and not with competitors such as Netflix or Hulu. Second, the rival hardware by Amazon has the same function. Even other practical functions such as Siri fast-forwarding a film by several minutes or rewinding by 15 seconds upon being asked, 'What did she just say?' if a dialogue hasn't been understood and showing subtitles can currently be performed only on iTunes. It would have been great if Apple had made the voice command available to other apps just like the access to 3D Touch on the iPhone, although this is likely to happen in the future.

The same goes for extending the voice control: just as Siri only spoke English at first when she was introduced, the user will have to make do with limitations in this case as well. Apple TV with Siri is going to be launched only in eight countries and five languages.

Incidentally, Siri is not integrated in the set-top box, but in the remote control. The remote control has a microphone button which can be used to activate the voice assistant. But the small remote control can do much more – and these, unlike Siri, are its real strengths: a touch field at the upper edge makes operating the Smart TV unbelievably simple. Thanks to its accelerometers and position sensors, the remote control also knows exactly where it is, and is therefore perfectly suited as a console controller. It isn't for nothing that Apple took a good amount of time for its keynote to demonstrate games for the set-top box. Gamers already know this from the Nintendo Wii from 2006 – but Apple has an app store with over 500,000 applications up its sleeve. 

## How 3D Touch works on the iPhone

A light press, the "peek", opens, for instance, the preview of an e-mail and a context menu. It's like the right-click of the iPhone. A deeper press, the "pop", will then start the app.



## Watch TV with Speech and Touch

The new Apple TV comes with the new Siri remote. This has a touch surface for navigation, motion detection for games, and voice recognition.



## The new iPhone 6S in the CHIP test lab

Apart from the iPhone 6S, the normal version, Apple is launching a large version too, i.e. the iPhone 6S Plus. They both had to prove themselves in the CHIP test lab: Apple once again proved to be a huge success. The display is one of the best ones available in the market. The contrast and brightness ensure excellent readability even in the bright daylight. However, this was true for its predecessor as well.

In contrast, the battery yielded negative results: the battery life in these has in part worsened considerably in comparison to its precursor, especially when making calls. This is partly because of the battery capacity in the 6S – the additional display later for the pressure recognition takes up space. But even with the battery life optimisations of iOS 9, the poor quality is surprising. So, we will repeat the test using new test equipment.

| Device   | iPhone 6S                     | iPhone 6S Plus                | iPhone 6     | iPhone 6 Plus |
|--|-------------------------------|-------------------------------|--------------|---------------|
| Colours  | Grey, silver, gold, rose gold | Grey, silver, gold, rose gold | Grey, silver | Grey, silver  |
| Display size   | 4.7 in                        | 5.5 in                        | 4.7 in       | 5.5 in        |
| Display resolution   | 1334 x 750                    | 1920 x 1080                   | 1334 x 750   | 1920 x 1080   |
| Processor  | A9 + M9                       | A9 + M9                       | A8 + M8      | A8 + M8       |
| Camera (back)  | 12 MP                         | 12 MP                         | 8 MP         | 8 MP          |
| Camera (front)   | 5 MP                          | 5 MP                          | 1.2 MP       | 1.2 MP        |
| Video  | 4K                            | 4K                            | Full HD      | Full HD       |
| Memory space   | 16/64/128 GB                  | 16/64/128 GB                  | 16/64 GB     | 16/64 GB      |
| Available memory (measured with a 1280 GB test instrument) | 111.6 GB                      | 111.6 GB                      | 112.6 GB     | 111.6 GB      |
| Battery life for talk time*                                | 247 min                       | 401 min                       | 314 min      | 536 min       |
| Battery life for online use                                | 340 min                       | 376 min                       | 349 min      | 380 min       |
| Contrast ratio   | 151:1                         | 154:1                         | 157:1        | 171:1         |
| Brightness   | 537 cd/m²                     | 490 cd/m²                     | 536 cd/m²    | 545 cd/m²     |
| Weight   | 143 g                         | 192 g                         | 129 g        | 172 g         |

\*preliminary test value



PHOTO: REUTERS/DADO RUVIC


 The image shows the YouTube logo in white text on a red rounded rectangle. In the background, there are dark silhouettes of several people, some of whom are pointing their fingers towards the logo, suggesting a crowd or a fan base.
 

# YouTube

# YouTube

*Founded ten years ago, today, the video portal counts among the most popular websites ever. A couple of impressive numbers confirm this statement* By Melissa Montasser

|  |                            |
|--|----------------------------|
| Video material uploaded per minute in hours  | 300                        |
| Time needed to watch all videos  | 1,000 years                |
| Amount paid by Google in 2006 for the video platform   | 1.65 billion US dollars    |
| Estimated market value today   | 70 billion US dollars      |
| Estimated percentage of video material in the overall web traffic up to 2017                                     | 80-90 percent              |
| Percentage of users who close a video within the first ten seconds   | 20 percent                 |
| Percentage of users who close a video within the first two minutes   | 20 percent                 |
| Counter reading of the most-called YouTube video ("Gangnam Style")   | 2.4 billion                |
| Advertising revenues (in US dollars) made by YouTube in 2012 with the music video "Gangnam Style"                | 6 million                  |
| Number of calls that "Gangnam Style" still records daily   | 1 million                  |
| Number of times the most popular clip that is not a music video has been called ("Charlie bit my finger-again!") | over 800 million           |
| Most-commented video on YouTube: "Baby" by Justin Bieber   | Over 6 million comments    |
| Video with the most number of dislikes: "Baby" by Justin Bieber  | Over 5 million             |
| The first video to reach one million views   | "Ronaldinho Touch of Gold" |
| Number of YouTube videos out of the top 1000 that cannot be played in Germany                                    | 615                        |
| Number of YouTube videos out of the top 1000 that cannot be played in South Sudan                                | 153                        |
| Percentage of advertisement clips that can be skipped  | 85 percent                 |
| Earnings of the most-subscribed YouTubers of 2014 in US dollars  | 4 million                  |
| Duration of the longest YouTube video in hours   | 596                        |
| Most-searched tutorial   | How to kiss                |
| Country with the highest number of viewers (in relation to population)   | Saudi Arabia               |



# The Browser Wars



*With Windows 10 in the game right now, Edge has forcefully pushed itself in, replacing the ageing Internet Explorer after years of disuse. CHIP takes a look at whether it can keep up with third party browsers, including Chrome, Firefox and Vivaldi* By Jörg Geiger

The most popular browser to download other browsers is about to die. With Windows 10, Microsoft is pushing Internet Explorer into retirement. It is still on board, but only as a stop-gap measure that can, for example, display websites that use ActiveX or ensure that services developed in-house remain functional. Microsoft Edge is the new standard browser under Windows 10.

It is oriented towards the minimalist appearance of Google Chrome, and features the new Edge HTML rendering engine. Those who do not install any other browser will automatically end up accessing the internet with Edge – but this only applies to Windows 10.

However, the new browser has met with a rather hesitant welcome: A month after its launch, Windows 10 had been installed on about 75 million devices throughout the world. According to the numbers contained in browser-related statistics, not even half the people using Windows-10 computers use Edge to access the internet. We ran a test to find out what the successor to IE can do, and compared the new browser to Chrome, Firefox, Internet Explorer, Opera and Vivaldi.

## New Technology Always Wins

Our test result makes it crystal clear: There's a limit to what you can do with old technology. The aged Internet Explorer was at the very rear of the pack. It is slow, poorly-equipped and hard to use. However, it came off relatively unscathed, considering that it received an overall grade of 'satisfactory'.

Nevertheless, the others are simply better than it, and this relates

primarily to their kit of up-to-date technology. Except for Internet Explorer, all the candidates are either completely rebuilt (Chrome, Edge), in the process of being renovated (Firefox) or using the Chrome sub-structure Chromium (Opera, Vivaldi). In the test, the three browsers that use similar technology – Chrome, Opera and the as-yet unfinished Vivaldi – were in the lead.

All three of these browsers use the same HTML rendering engine (Blink), as well as the same JavaScript environment (V8). However, as our benchmarks demonstrate, a certain gap does exist even if identical engines are being used. Especially when it comes to speed, Firefox and Microsoft Edge seem to trail behind. The former only manages to outpace Edge, which is in the lead from a technological point of view, on account of better operations and equipment. Mozilla had better hurry up with its renovation, otherwise it may just miss the boat.

Firefox and Opera are the only browsers that Windows users cannot operate in the form of a separate 64-bit version; all the other candidates are available in the form of modified 32-bit and 64-bit variants. The two Microsoft browsers only focus on Windows, and Edge concentrates exclusively on Windows 10.

Along with Windows, the other test candidates are also compatible with Linux and OS X. A little detail shows that Firefox is lagging behind in the technology department: Only the Mozilla browser renders all the opened websites in a single process. Consequently, a website crash could end up crashing the entire browser. All the other test candidates rely on multi-process environments, which means that they pack each tab into a

separate process. This increases stability and facilitates a more flexible memory management process.

## Edge Has An Edge in JavaScript

This is very important, since browsers are among the programmes that are always open, and which are used most frequently, a high operating speed is one of the most important properties. The first big surprise in our extensive speed tests was the fact that Microsoft Edge beats all the other browsers in the JavaScript benchmarks, including the test winner Chrome. What's strange is that with a score of 24,074 points (which is 1300 more than Chrome), Edge even manages to attain the best score in the Octane benchmark, which was established by Google. That this upsets the Google developers can be gleaned from the new functions of the next version of Chrome, which focuses on speeding up the JavaScript code.

However, the tested version of Google's browser only manages to occupy the 2nd rank in this category, and is just slightly ahead of Opera and Vivaldi. Firefox attained a score of 17,791 points, while Internet Explorer props up the rear. However, we have to point out that the tested version of Edge was the only browser that had problems with the Jetstream benchmark, which also measures the JavaScript performance. In relation to this, Edge is also the only browser that has problems displaying complex sites.

As important as JavaScript processing is, it's not everything. We used an extensive benchmark to measure the speed for typical web tasks, which range from the modification of individual graphics and the answering of requests to the 3D performance. In this department, Chrome once again is the top of the browser charts, leaving all of its competitors behind. Vivaldi and Opera – which use the same sub-structure – are the only ones that are in Chrome's league.

## Firefox is Hot At Handling

All the browsers in the test field were actually quite simple; none of them require a long period of familiarisation. All you have to do is type in the URL or the search term, and you're ready to go. However, when it comes to handling, the devil is in the details.

Firefox has the best solutions in this regard, as is evident during the start-up itself: Chrome and Edge are pared-down, and only display the URL line. On the other hand, Vivaldi and Opera throw up the speed dials. That's not a bad idea, since that's where you can find the websites that are used most frequently.

Once you start using the browser, it provides access to a variety of sites. In addition to the search facility and the URL tab, Firefox also provides quick access to the settings, synchronisation, history and downloads. This should ensure that even beginners find their bearings quite quickly. However, we were somewhat critical of Firefox's new-tab page, which recommends new websites on the basis of the previous browsing history. However, as is typical of Firefox, this tracking function can easily be disconnected from the new-tab page.

When it comes to the settings menus, Firefox and Vivaldi are ahead of the rest on account of their clear structures and appealing designs. Vivaldi even offers a capable search facility, which is not present in Firefox. Chrome smacks the settings together in a haphazard manner. In case of Opera, the settings menu is almost superfluous, since many options have been transferred to the Opera menu that is in the upper left portion of the window, which makes it look somewhat confusing.

## Chrome And Firefox Top The Configuration Charts

Another department definitely leaves a little something to be desired:

## Chrome outpaces the others

In addition to being fast with special tasks, browsers must also accomplish typical web-related tasks swiftly. This is what we check in the Browsermark test.

### BROWSERMARK (ALL-ROUND SPEED TEST) (FIGURES IN POINTS)



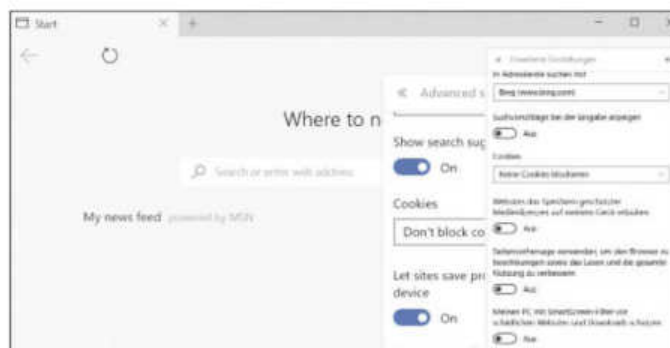
## Firefox is the simplest

When it comes to handling, Firefox is in the lead. No other browser guides the users so well, or displays settings this clearly.



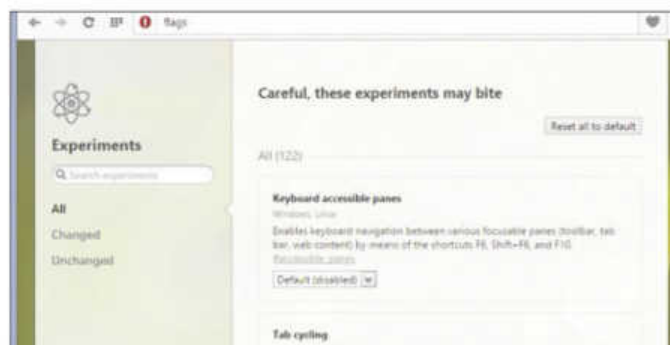
## Conceived as an app

Microsoft Edge is like an app in a desktop environment, which can be seen from the clinched settings menu at the side.



## Hidden professional functions

Although Opera invites experimentation under >>about:flags<<, Chrome and Firefox offer tinkerers a larger playing field.





Professionals would be best served with Chrome and Firefox. In addition to the final versions that were tested, these two browsers also feature betas and developer variants. Those who want to beta test future functions today can do it very easily with Chrome and Firefox by simply switching over to the developer channel.

In any event, the two browsers are in a neck-and-neck race when it comes to most features, and they release new versions every six weeks. Even when it comes to the official versions, Firefox and Chrome offer several hidden professional functions: Firefox and Chrome bundle these settings up under 'about:config' and 'about:flags', respectively. Opera and Vivaldi are also familiar with the large flag play-space. On the other hand, the experimental features of Microsoft Edge are quite negligible, and fail to make much of an impression.

However, we didn't just evaluate the advanced functions; our routine depends on bread-and-butter features. Many users equip their browsers with various services, such as ad blockers, VPN plug-ins and special downloaders for their favourite sites. In this department, Chrome and Firefox once again turn out to be in a tight race. Firefox is still the king of add-ons, but many extensions are also available for Chrome. Compared to these two, the other browsers are left far behind.

In addition to featuring a PDF viewer, Chrome is also the only candidate in the test field that provides a Flash plug-in, which it updates automatically on a regular basis. The Microsoft browsers offer a similar degree of comfort, although they feature the Flash plug-in that is integrated into Windows. Users of Firefox, Opera and Vivaldi must acquire their Flash updates on their own.


A few minor equipment-related defects did become apparent during the test: Vivaldi is the only browser in the test field that cannot synchronise with other installations, Firefox does not offer a German dictionary for the spell-checker under Windows, and Internet Explorer does not support the WebRTC standard for audio and video conferences within the browser. Speaking of standards, Chrome, Firefox and Opera are top-notch when it comes to playing typical audio and video formats. Furthermore, HTML5 – which will increasingly replace tools and plug-ins for media playback – is implemented in the best manner in Chrome and Vivaldi. It is also featured in Opera, although with minor shortcomings.

## Site security

There is a significant need for improvement when it comes to security, which is why none of the candidates managed to score 100 points in this category. Microsoft releases security updates every four weeks, while Firefox and Chrome are updated every six weeks.

We used security benchmarks to check the browsers for vulnerabilities related to cross-site scripting or address-spoofing; Chrome and the two Chromium-based browsers (i.e. Vivaldi and Opera) scored the highest number of points. All the browsers feature auto-updates, password managers and a built-in surfing protection facility, which checks websites for infected contents on the basis of their reputation and downloads.

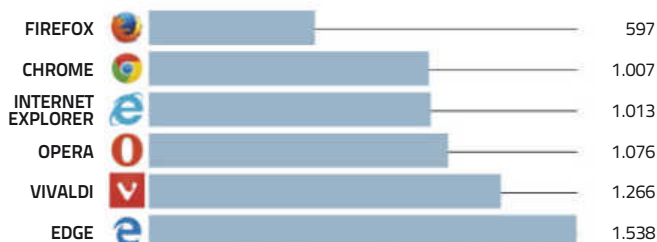
Firefox is still having problems with sandboxing protection, which is why it lags behind its competitors in terms of security. Nevertheless, Firefox and Chrome are the only two browsers that use click-to-play functions to keep plug-ins under control. What surprised us was that the latest Vivaldi version does not offer an anonymous private mode.

Microsoft Edge stands out with an extensive list of browser data, which can easily be deleted. However, there is no reset button for resetting all the settings to the delivery status – Internet Explorer did feature this useful option. 

## Firefox conserves resources

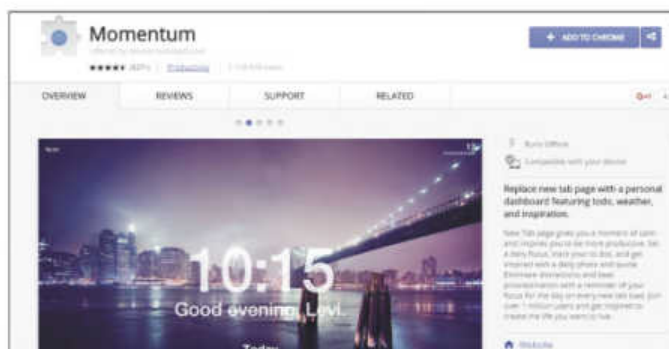
In practice, an unnecessarily high usage of the RAM can slow things down. We measured the RAM usage of the browsers using ten open tabs.

### RAM USAGE (FIGURES IN MBYTES)



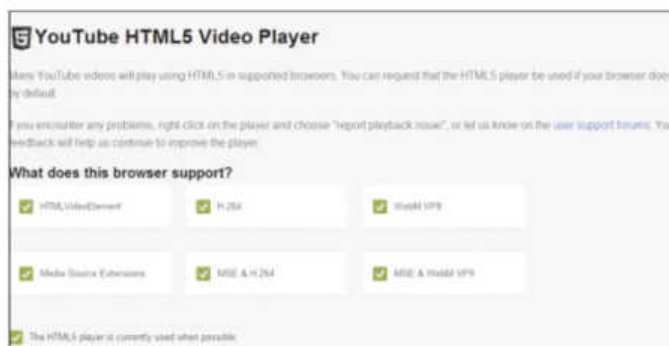
## Problematic add-ons

Extensions are the salt in the soup of equipment. Vivaldi has to deal with compatibility problems in this department.



## Chrome scores with successor to Flash

More and more websites like YouTube are using HTML5. Chrome, the test winner, is also at the top in this category.



## A bit more privacy

Microsoft Edge prominently offers the extensive "Delete browser data" option in the "Settings".



# CHIP Test result

All in all, the test field features an array of good scores. The elderly Internet Explorer is the only browser that falls short. The three browsers that use the Chrome sub-structure are at the top, while Firefox and Edge are in the middle of the field.

The test winner Chrome is at the top almost everywhere. No other browser is as fast or secure. Chrome is also at the head of the pack in terms of equipment.

When it comes to JavaScript benchmarks, Microsoft Edge shows that it is possible to outdo Chrome. However, it primarily lacks extensions.

Firefox has an edge over Chrome due to its top-notch handling and lavish equipment. Better ranks can only be attained with better technology.

Opera and Vivaldi are excellent alternatives for all those who want top-notch technology without having to use a Google browser.

## How CHIP tests browsers

We used the following test concept for the browsers:

- 30% Handling (30 percent)** The user guidance and usage are evaluated across the board. How easy is it to find settings? How do the browsers accomplish routine tasks?
- 30% Security (30 percent)** In addition to running benchmark tests for classic browser loopholes, we also evaluate protective techniques like sandboxing, and settings for plug-in security.
- 30% Speed (30 percent)** This category involves targeted measurements for JavaScript processing, 3D acceleration and extensive speed benchmarks related to typical web actions.
- 10% Equipment (10 percent)** How well-equipped are the browsers at delivery, and how well can they be enhanced with additional functions?

## Testing browsers



|                        | CHROME | OPERA | VIVALDI | FIREFOX | EDGE | IE   |
|------------------------|--------|-------|---------|---------|------|------|
| Rank                   | 1      | 2     | 3       | 4       | 5    | 6    |
| Overall                | 95.1   | 90.4  | 88.9    | 87.6    | 82.8 | 71.8 |
| Handling (30 percent)  | 87     | 85    | 89      | 100     | 84   | 78   |
| Security (30 percent)  | 97     | 90    | 83      | 83      | 86   | 86   |
| Speed (30 percent)     | 100    | 99    | 97      | 77      | 82   | 53   |
| Equipment (10 percent) | 100    | 82    | 82      | 97      | 73   | 67   |

### TECHNICAL SPECIFICATIONS

|                            |                        |                        |                        |                        |                 |             |
|----------------------------|------------------------|------------------------|------------------------|------------------------|-----------------|-------------|
| Manufacturer               | Google                 | Opera                  | Vivaldi                | Mozilla                | Microsoft       | Microsoft   |
| Tested version             | 44.0.2402.157          | 31.0                   | 1.0.219.50             | 40.0.2                 | 201.024.016.384 | 11.0.9899.0 |
| Operating systems          | Windows/<br>OS X/Linux | Windows/<br>OS X/Linux | Windows/<br>OS X/Linux | Windows/<br>OS X/Linux | Windows 10      | Windows     |
| Rendering engine           | Blink                  | Blink                  | Blink                  | Gecko                  | EdgeHTML        | Trident     |
| JavaScript                 | V8                     | V8                     | V8                     | JägerMonkey            | Chakra          | Chakra      |
| 32/64 Bit                  | ■/■                    | ■/□                    | ■/■                    | ■/□                    | ■/■             | ■/■         |
| Hardware acceleration      | ■                      | ■                      | ■                      | ■                      | ■               | ■           |
| Multi-process architecture | ■                      | ■                      | ■                      | □                      | ■               | ■           |

### EQUIPMENT

|  |                    |                   |                                   |                     |                            |                            |
|--|--------------------|-------------------|-----------------------------------|---------------------|----------------------------|----------------------------|
| PDF/Flash integrated                     | ■/■                | ■/□               | ■/□                               | ■/□                 | ■/□*                       | □/□**                      |
| Add-ons                                  | ■                  | ■                 | Experimental<br>Chrome extensions | ■                   | Being planned              | Only a handful             |
| Standard search engine                   | Google             | Google            | Google                            | Google              | Bing                       | Bing                       |
| Synchronisation                          | Via Google account | Via Opera account | □                                 | Via Firefox account | Via MS account             | Via MS account             |
| Bookmark manager                         | ■                  | ■                 | ■                                 | ■                   | ■                          | ■                          |
| Adjustable design                        | ■                  | ■                 | Limited                           | ■                   | Limited                    | Limited                    |
| User profiles                            | ■                  | □                 | □                                 | ■                   | Linked to Windows<br>users | Linked to Windows<br>users |
| Spell checker                            | ■                  | ■                 | ■                                 | ■ ***               | ■                          | ■                          |
| Auto-fill facility for web forms         | ■                  | ■                 | ■                                 | ■                   | ■                          | ■                          |
| WebRTC                                   | ■                  | ■                 | ■                                 | ■                   | ■                          | □                          |
| H.264/Ogg Theora/WebM/AAC/MP3/Ogg Vorbis | ■/■/■/■/■/■/■      | ■/■/■/■/■/■/■     | □/■/■/■/□/□/□                     | ■/■/■/■/■/■/■       | ■/□/□/■/■/■/■              | ■/□/□/□/■/■/■/■            |
| Reset function                           | ■                  | □                 | □                                 | ■                   | □                          | ■                          |

### SECURITY

|                 |   |   |   |               |   |   |
|-----------------|---|---|---|---------------|---|---|
| Auto-Update     | ■ | ■ | ■ | ■             | ■ | ■ |
| Surf protection | ■ | ■ | ■ | ■             | ■ | ■ |
| Password manage | ■ | ■ | ■ | ■             | ■ | ■ |
| Sandbox         | ■ | ■ | ■ | eingeschränkt | ■ | ■ |
| Click-to-Play   | ■ | □ | □ | ■             | □ | □ |
| Private mode    | ■ | ■ | □ | ■             | ■ | ■ |

### MEASUREMENTS

|                              |                   |                   |                   |                   |                   |                   |
|------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Browsermark (all-round test) | 5036 points       | 4883 points       | 4970 points       | 4072 points       | 2869 points       | 2727 points       |
| Octane (JavaScript)          | 22789 points      | 22424 points      | 22213 points      | 17791 points      | 24074 points      | 11991 points      |
| Bmark (GPU acceleration)     | 1666 points       | 1985 points       | 1416 points       | 737 points        | 1092 points       | 768 points        |
| Browserscope (Security)      | 16 of 17 points   | 16 of 17 points   | 16 of 17 points   | 14 of 17 points   | 15 of 17 points   | 15 of 17 points   |
| HTML5Test (web standards)    | 526 of 555 points | 525 of 555 points | 526 of 555 points | 466 of 555 points | 440 of 555 points | 348 of 555 points |

\* IN WINDOWS 10 \*\* IN WINDOWS (FROM WINDOWS 10 ONWARDS)  
\*\*\* NO GERMAN DICTIONARY UNDER WINDOWS

■ TOP CLASS (100 – 90.0) ■ UPPER CLASS (89.9 – 75.0) ■ MIDDLE CLASS (74.9 – 45.0) ■ NOT RECOMMENDED (44.9 – 0)  
ALL SCORES IN POINTS (MAX. 100) | ■ YES □ NO



# Malaysia Technology Round-Up Of 2015

*By Nazrin Zain*

**T**he year 2015 has seen its fair share of technological fanfare here in Malaysia, with product launches, a variety of technological advancements and a whole host of other cool stuff as well. We here at CHIP Malaysia have asked a variety of such tech companies to chime in how the year has been for them, and the industry that they're involved in as a whole, how it has evolved and what these companies are actually looking forward to in the year to come.

These companies range from the likes of Google, HTC, MSI, Cooler Master, Honor, and OKI, amongst others, so join us as we take a walk down the memory lane of 2015, and look forward to the path to the future that is 2016.





## Chaw FH General Manager BenQ Malaysia

**T**he year 2015 marks a very important step for eSports development in Malaysia, especially with government setting up eSM official endorsed eSports under youth activities.

This can be seen from companies such as Astro officially showing the world's top tournaments in its own channels and world top organiser ESL coming down to Kuala Lumpur to host its first Asia qualifiers here.

Of course, BenQ as global leading gaming monitor brand, have to also give our best support to the betterment of eSports Malaysia.

In 2015, we have allocated nearly 70 percent of our monitor marketing budget into eSports; supporting a variety of tournaments, organise meet ups between professional gamers and their fans, sharing their valuable experience in gaming, sponsoring pro gamers in their training house, such as fnatic training room in Malaysia as well as other on-ground activities. We offer gamers a platform to gain experience throughout competition and hopefully it will bring them to the global competition scene.

Moving forward 2016, for sure BenQ will continue support eSport development in Malaysia, and gamers should expect to be a part of BenQ's gaming plans in 2016.



## Sajith Sivanandan Country Manager Google Malaysia

Google had a pretty memorable 2015 in Malaysia. From maps, imagery, movies, convenience for telco customers, YouTube creators and many more we made good progress towards our mission of making the world's information accessible and useful to Malaysians. To recap: on the consumer side our Street View team were busy with the Malaysian Nature Society completing the circumnavigation of Peninsular Malaysia using the world's first Street View Trekker on a Kayak. Then, in conjunction with World's Oceans Day we strapped the Trekker on an ATV to capture Tioman Island imagery. We wrapped up East Malaysia public road imagery collection along with special collections of Sabah and Sarawak attractions like Mount Kinabalu and Mulu Park.

We expanded Google Play to include Movies and Newsstand aside from Books, Apps and Games and launched direct carrier billing with DiGi to make it easier for Malaysians to transact. We made it possible for developers to charge as low as RM1 for paid-apps on Play. We also launched Chromecast to Malaysia with Maxis.

Since Malaysians are among the world's champions at multiscreening their TV and smartphone consumption according to our Consumer Barometer research results, we also introduced the Mobile Leadership Program to supercharge Malaysian business' digital presence on mobile. For those on slower mobile data connections, we switched on a lighter version of Google Search results so Malaysians can continue to search for information even if they're running on 2G speeds.

To help boost the local digital ecosystem, we ran the Google Ignite

pilot, a training-to-internship programme to expand the pool of digital marketers in Malaysia by partnering with seven universities and JobStreet.com. The programme culminated in a job fair for 650+ Google certified students to score internships with brands and agencies. We hope to expand the scope nationwide next year.



On the government/national level, we held our first Google Education-on-Air online conference in November with the support of the Ministry of Education as a platform for Education Technology best practices sharing; and we invited educators, students and parents to tune into the inaugural event. We also launched the Google for Nonprofits programme officially in Malaysia this year; now Malaysian nonprofits can benefit from using Google Apps free-of-charge and Ad Grants up to the tune of US\$10k per month. Last but not least, we launched the 'Made for YouTube' programme with MDeC to discover, nurture and fund new media content creators whom we hope will create a new global market for Malaysian-made content.

Malaysia continues to go from strength to strength as a connected nation - it may well be said that Malaysians are either online or asleep. We believe that we are but only one step into an incredibly exciting journey ahead - a journey that promises to bring the very best of the web to Malaysians. We hope 2016 will be even more exciting and full of activities for Google here, and we look forward to roll out more things for all Malaysians to enjoy.

## Jerry Lu Country Manager MSI Malaysia

As a world leading gaming brand, MSI's goal is to become the most trusted name in gaming and e-sport. We stand by our principles of breakthroughs in design, the pursuit of excellence, and technological innovation as we have continued to raise the bar for ourselves and have accomplished a great deal of pioneering work in the industry. Furthermore, we will keep bringing you the best innovations, record breaking performance and reliable quality to be your No.1 in Gaming! PC gaming is constantly evolving, and our new lineup of battle machines are ready to take on any challenge. MSI has been leading GAMING in eSports with professional teams across a variety of popular games such as League of Legends, Dota 2 and Counter Strike: Global Offensive (CS:GO). MSI also has been sponsoring gaming teams which have attended more than 75 international gaming events annually and have won numerous world championships across multiple game titles. On top of that, MSI keeps connecting with gamers to provide the best, most suitable and high quality gaming rigs in the industry.

MSI Malaysia is committed to growing the local e-sport communities, from hosting tournaments to gaming-related events in colleges and universities. MSI will keep planning, sponsoring and developing the e-sport scene in the country.

E-sport is a competitive, challenging scene that requires a

significant amount of collaboration around the world. We love to hear each gamer's feedback. In addition, MSI will continue to contribute our invaluable input on how gaming peripherals should perform, and make a difference to the user's gaming experience.

The most exciting news is that in 2016 MSI Malaysia will open more concept stores in different locations. As one of the top brands in gaming, MSI is also one of the most popular. e-sport is also becoming increasingly popular globally.

MSI will continue to evolve and innovate in line with its vision of creating the best gaming platform for competitive and casual gamers alike. With a brand slogan of "Innovation with Style," MSI spares no effort in the pursuit of excellent quality, user-friendly design and exquisite fashion products. MSI's core values of "Innovation" and "Style" have made it a leading brand that surpasses customer expectations.



## Goh Yin Hwang Country Manager OKI Data (S) Pte Ltd – Malaysia Office

**O**KI Data (S) Pte Ltd – Malaysia Office hosted a golf event titled OKI Golf Tournament 2015 at World's Best New Golf Course, The Els Club, Teluk Datai, Langkawi with 72 golfers in attendance on 12 Sept 2015. Theoretically, it is known as a golf tournament, but more so, it is a friendly and interactive get-together exclusively organised for our customers, partners and media members.

During this event, OKI also launched new high-performance, eco-friendly, A4 mono printers and Multifunctional Printers. OKI has refreshed its portfolio with the launch of the B412dn, B432dn and B512dn single-function printers and the MB472dnw and MB492dn multifunctional printers offering businesses of any size the choice and flexibility to suit their needs and budget. With an already outstanding history of producing robust, dynamic office-standard printers, these newest printers and MFPs from OKI are the perfect addition to any business.

On top of that, OKI today also launched a new colour A3 smart multifunction printer (MFP) ES8473 with intelligent, user-friendly features and enhanced functionality. This powerful, smart MFP provides additional levels of business productivity through the sXP1 (smart Extendable Platform), OKI's embedded open platform offering enhanced workflow integration and document management across the user's business. Today's organisations need intelligent, reliable devices that offer the flexibility to manage a range of different tasks. The new ES8473 smart MFP enables enterprise users to truly take control of their document workflow and support a broad spectrum of business requirements.

OKI Data Corporation and Seiko Instruments Inc. ('SII' hereinafter) signed an agreement on July 8, 2015, whereby OKI Data Corporation will acquire the globally-deployed wide format printer business of Seiko I Infotech Inc. ('SIIT' hereinafter), a subsidiary of SII.

OKI Data Corporation and SII signed a stock purchase agreement for the acquisition of all SIIT shares held by SII. Furthermore, OKI Data Corporation's overseas subsidiaries in Europe and the US each signed asset purchase agreements with SII's European and US group companies, to acquire the wide format printer business and assets

currently held by SII in Europe and the US. The parties will complete the business transfer on October 1, 2015, in keeping with the agreements. The transaction will not affect the various products and services currently provided by SIIT, including products and services related to wide format printers.

Through this acquisition, OKI Data Corporation will not only acquire a portfolio of wide format inkjet printers for signs and LED graphic plotters held by SIIT, but also the technologies and development resources together with the relevant sales channels. OKI Data Corporation will strive to enhance its business activities in the professional printer market through offering one-stop printing solutions particularly targeted at the printing, distribution, and retail industry sectors. By integrating technologies and resources between the parties through the acquisition, OKI Data Corporation will enhance its product portfolio and product development capabilities.

OKI Data (S) Pte Ltd – Malaysia Office has improved their brand visibility through consistent advertisement and promotions. We also actively participated in IT fair, premium gift fair, printing fair, medical equipment roadshows and etc.

For the upcoming years, OKI Data (S) Ptd Ltd – Malaysia Rep Office will target vertical market such as graphic art printer; Wide Format Printer, Neon Printer and White/Clear Toner Printer, and medical printer; DICOM Printer. We will continue our vertical market segment activity by participating in premium gift fair, printing fair, medical equipment roadshows and etc. We will also be expanding the MPS business segment and professional printing segment. We will ensure competitiveness on selected product range especially Executive Series, Graphic Art Printer and DICOM Printer with partners to achieve our utmost sales potential by studying alternative channel and market segment development plan. I believe with a dedicated and committed team in Malaysia, we will be able to continue to build our legacy with OKI high performance and reliable products to meet our customers' every printing needs.



## Ng Ka Soon Desktop Sales & Product Manager MSI Malaysia

**M**SI will keep working on the development of its Gaming oriented products, including its three series of Gaming motherboards. With this, PC DIY users will have plenty of choices to build a personal, stylish PC with suitable performance. This year we were happy to meet so many enthusiastic gamers on gaming events, tournaments and user gatherings.

We received a lot of valuable feedback to make even better products for gamers, as well as professionals and industrial partners,

and we have made a huge step this year by introducing our PRO and ECO series Intel Skylake motherboards. So we intend to fulfil our customers' wishes in every aspect and field in 2016. We will also come with a few surprises showing the innovative skills of our various R&D departments, making 2016 another exciting gaming year for MSI.





## Cheong Wah Tong Country Manager HTC Malaysia

**H**TC has always pride itself as one of the global leaders in the mobile industry through their innovation and design. With these values in mind, HTC constantly strives to improve itself, achieving a couple of milestones this year by expanding their portfolio in venturing into other aspects aside from just producing smartphones.

Chief among all would be the global announcement of HTC Vive where HTC collaborated with Valve, the creator of ground breaking games such as Portal and Half-Life. HTC is always adventurous and looking upon future demands to create some of the finest consumer electronics which pulls the virtual world off your computer screen and into your home. This device has the capabilities to transport you to another place and another time, unleashing a whole new reality with limitless possibilities.

Narrowing down to Malaysia, HTC diligently looks into the market



demand and introduced phones that are suitable to the local market. In order to cater to the various market needs, HTC introduced various devices from both premium and affordable categories such as the HTC One M9+, HTC One E9+, HTC One M8 (EYE) and the Desire Series.

Consumers can continue to expect some brand new phones from HTC in the near future that will be sure to excite and surprise you.

## Allen An E-Commerce Director Honor Malaysia

**H**onor as a brand has grown impressively over the past 12 months in Malaysia. With our flagship model, the Honor 7, which we launched recently, Honor now offers Malaysians a complete range of smartphones catered for the brave. Since the launch of the Honor brand just over 18 months ago, we have developed ourselves into a brand that stand on our own strength and merits in the sea of smartphones manufacturers in Malaysia.

At the same time, we have developed and strengthen our relationships with our fan-base in the country, which are called Honor Fans. The involvement of the fans with our brand separates us from others as the grass-root movement gives us a channel for fans to directly communicate with the brand, and engage with Honor in a more intimate level. It also reinforces the message that our fans are at the heart of everything we do – from product development to events.

We have also proud to have achieved positive success in our online shopping website – VMALL.MY. This is evident with our recent sale on 11.11, where we managed to sell over RM 12million worth of products online, as well as involving over 200,000 loyal fans and customers in the special one-day sale.

The smartphone industry in Malaysia is currently quite significant, thanks to the country's high mobile penetration rate of 140% (as of 2014). A recent Google research showed that 71% of Malaysians own smartphones, which is higher than the Asian average of 66%. The same research also highlights that the smartphone is the main channel for users in Malaysia to access Internet content. This is an indication on how important the smartphone has become to Malaysians.

Globally, smartphones continue to be a hot ticket item for consumers. IDC forecasts that smartphone shipments will be at 1.44 billion units by the end of 2015, a growth of 10.4% when compared to 2014. Honor is forecasted to achieve a 9% share in the global shipment for the same year, as part of the Huawei group. This puts the brand as the third most shipped smartphone brand worldwide,



which is great news for us.

The trend for 2016 may see companies start to produce more affordable smartphones as the price for manufacturing each unit goes down, instead of exclusively producing high-end models. This scenario fits with the forecast of emerging countries such as India and Indonesia becoming the next big smartphone market – and these markets are more price sensitive when compared with more developed markets.

There may be also a growing trend of wearable, as the market matures in accepting the product to be part of their daily lives. This may see an increase of smartphone adoption as well, as wearables will need a smartphone to achieve its full potential.

For 2016, Honor as a brand is poised to grow following the aforementioned trends. We are set to introduce our new smart band by the end of the year to the Malaysian market, after our introduction in London earlier this year. We are also set to roll out the latest Android 6.0 update to select models in our smartphone range soon. As for new products in the pipeline, we can't share anything at this point of time, but rest assured that there will be great announcements coming from Honor in the coming months ahead.

## Hanif Wang Senior Specialist Cooler Master

It is human nature to want unique products enabling you to express yourself. We realise that people want to etch their uniqueness into all things they make and do. In everything from components to cases, in the way they are configured to the way they look and feel, Cooler Master is committed to giving greater choice and control to the consumer. We want our products and community to reflect this 'maker spirit,' that curiosity to know how and why things work, and the satisfaction that stems from taking ownership of something you make.

New products made in this spirit have been well-received. The MasterCase 5 and other successful peripherals, such as the Quick Fire XTi, have been widely recognised as having superior build quality. Positive feedback from all regions in terms of reviews and our vision confirm this sentiment. Our key message: 'Whatever You Make, Make It Yours. Make It Cooler Master,' has been successfully carried from Computex and echoed positively across all regions at various seminars. It resonated really well with all the Makers that attended our seminars at various countries across the globe and we are really looking forward to working closer with the community.

The world of PC builders and modders grows every year and we are providing all Makers with an outlet to showcase their work. For Cooler Master, our world is not only surrounded by PC builders and modders but all kinds of Makers from Virtual Reality developers, artists, live-game streamers, stop-motion animators, game designers and even 3D printing.

We are trying to further develop this community with events such as 'I'm a Maker Challenge' – the first of its kind, and other events such as 'Case Mod World Series', the seventh instalment of which begins early next year. The scale of this event currently has no comparison and we hope to surpass the 200+ projects submitted last year.



We were astounded by some of the builds done by first-time modders around the world. These modders came from different walks of life which had no bearing on their designs and concepts. It is a very humbling experience and we are merely providing a platform for the modders and makers to display their talent. There is no way to predict the designs formed by modders and PC builders. Each individual is unique in their build and in their choices. We have seen games, cars, motorcycles and even something completely out of this world being built. One can follow their work logs and even learn a few things themselves by accessing their info on our community forums.

In terms of new products, we have a ground-breaking product line up at CES 2016. We hope to reach out to as many makers as possible and provide a platform where we can nurture their talent. For now, all we can request is for you to keep an eye on our site as the year 2016 rolls in. We are really excited about the coming year and we are sure you will be in for a surprise.

Whatever You Make,  
Make It Yours.  
Make It Cooler Master.

## Rohit Maheswaran Founder and Chief Product Officer Ebizu


I believe 2016 will really impact the retail industry. It's a rapidly changing landscape for the retail market in South East Asia and across the world. The mobile first e-commerce market is booming with more and more disruptive on demand O2O services being deployed every day in Asia. With more consumers connecting with brands and businesses on mobile platforms, there is a need for the next wave in marketing automation which marries the online and offline world to create a seamless customer retail experience like never before.

Two trends that I foresee really taking off in the coming months, specifically in South East Asia – The rise of e-commerce, on-demand and logistics services in this region has built a strong and valuable consumer behaviour that will change the way people do everyday things forever. The on demand apps revolution that has exploded in just a few short years, has made it super easy and convenient for consumers to get what they want, when they want it. The ability to connect the online service to a real engagement in the offline world is where the next killer app lies. The ability to change a users' behaviour when it matters the most, is key to successful execution of O2O services. Here is where we are seeing the rise of beacon technology, which is able to power O2O services with micro location precision. In the retail space, O2O services are booming in China and it is bound for South East Asia very soon. Beacons not only provide proximity advertising capabilities but is able to generate data to study consumer movement and behaviour, which is essential to create highly

engaging mobile experiences. Even more important to this transformation are consumers who constantly switch between desktop and laptop computers, tablets, smart phones, wearable devices, and connected TVs. It's becoming increasingly difficult to target users with relevant ads in such a landscape. This is where Beacons can really transform retail



advertising spend – by cutting costs, increasing sales, and creating a win-win situation for businesses and consumers at the same time.

Groupon brought on a disruptive O2O retail revolution that educated offline merchants about digital marketing services. Although the model was not sustainable, it showed merchants the power of online marketing and how vouchers could drive sales into their business. Today, we are seeing a voucher craze in all online services. If there is a service or app out there, chances are there a discount or voucher code for that service available to be redeemed. Consumers are constantly on the lookout for discount codes before making their purchase. I believe this code crazy behaviour can be channeled to the physical retail space with the next wave of mobile vouchers. Merchants can create, advertise (via beacons) and distribute discount vouchers to shoppers around them via mobile. This will drive instant sales into their outlets and the data collected can be used to create a highly engaging retail experience that will build a loyal customer base. 

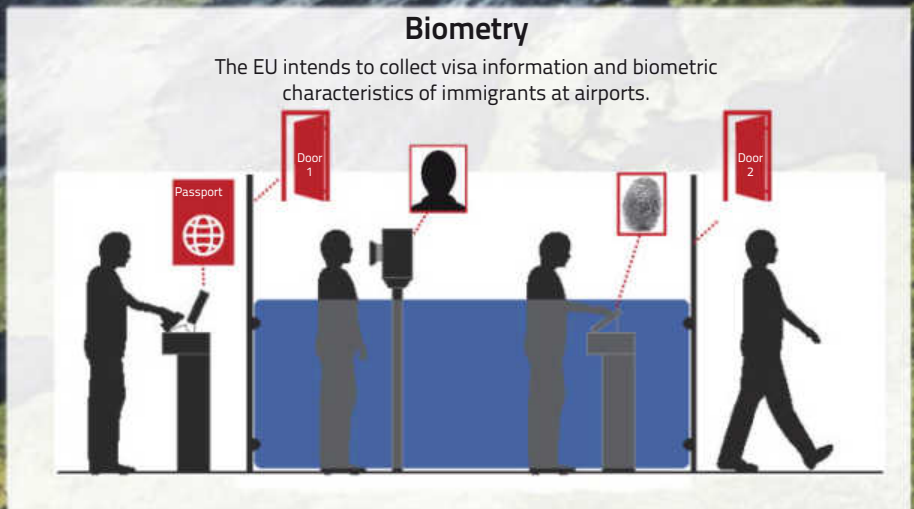


# Smart, strict borders

EU nations are testing the electronic control of the Schengen borders by means of several pilot projects in order to seal themselves off from illegal immigrants and refugees.

## Government network

Monitoring centres of the police departments in 24 EU states exchange data on the border controls.



Satellite

## Border surveillance

The EU agency Frontex searches for illegal border trespassers with the help of satellites, aeroplanes and ships on coastal waters

Aeroplane

Refugee flows

## Illegal entry

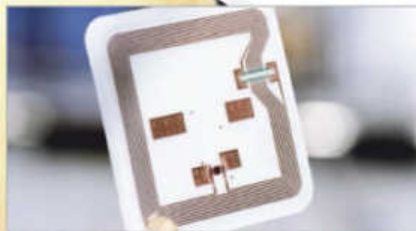
Many people travel to the EU without a valid visa mainly from North Africa, the Middle East (via Turkey) and via the Balkans.

## The biggest problems of the Smart Borders



### Data security

The collection of biometric data is tantamount to data preservation; every immigrant is under general suspicion.



### Technical difficulties

RFID chips can trick passport controls, portable scanners do not work if the network connection is bad.



### Cost

The Smart Borders cost a little more than one billion Euros and mean an enormous expense on the part of the administration – too much, according to critics.



# High Tech Borders In The EU

*While citizens are welcoming the refugees coming to Europe, the EU is upgrading the external borders electronically as a deterrent* By Claudio Müller

Smart Borders, also known as electronic border controls sounds like progress. In reality however, the project named thusly for monitoring the EU's external borders is a step backwards: because whether they make the borders safer is uncertain.

The Smart Borders project comprises several parts. The control of the borders via satellite, aeroplane and ship is already in action. By November 2015, the EU will also test the electronic collection of personal data of everybody from the non-EU countries, at the Frankfurt airport, for instance.

The interim report now released revealed innumerable technical flaws. The fingerprint scanners were at best sporadic; they should record all ten fingers. Moreover, the passport controls could be fooled by glued-on RFID chips on which a fake passport was stored. The monitoring equipment did not have the necessary certificates for checking the data.

And the mobile scanners introduced in trains had to struggle with connection failure when used in areas that have slow access to mobile data.

However, the Smart Borders are just another surveillance apparatus of the European police authorities. They can access the data gathered with the help of the EU border agency, Frontex. The collection of biometric data is transitioning from the test phase to full operation (planned for 2020), and this will also be available for all authorities. Way back in 2013, the then-Federal Commissioner for Data Protection, Peter Schaar, had criticized the project as complete data preservation, which hid the risk that the innocent would slip into the wanted list. This doesn't affect EU citizens yet, but the introduction of electronic passport controls and the plan to store data on air passengers also makes our travels more manageable. 

## The Smart Borders project

The entry/exit system (EES), the Registered Traveller programme and Eurosur form the core of the EU project, Smart Borders. But there are still a number of other ideas for data collection.



## The entry/exit system

The EES controls the arrivals and departures of non-EU citizens and collects visa data and biometric features. The aim: monitoring the duration of stay, future identification with the help of biometric data.

## The Registered Traveller prog.

In the RTP, travellers can have their data collected before their departure in order to speed up the border control at the destination. Germany is working in cooperation with the USA and Hong Kong for this.



## Eurosur

The supervisory body for the EU-external borders, headed by the European border agency, Frontex will locate illegal immigrants at the "high-risk borders" in southern and eastern Europe by means of monitoring.

## EasyPass

The quick passport control for EU citizens leaving or entering the Schengen Area. At present, around 140 eGates are in use at six German airports. Biometric data is not collected, say the federal police, and passenger data is deleted immediately after they cross the border.

## Passenger data

Based on the USA model, the EU too now intends to save the data of up to 60 passengers (name, address, itinerary, payment information, etc.) for up to five years. In 2013, the EU was opposed to such a plan, but the LIBE committee of the EU parliament has now okayed the draft. The oft-cited reason: defence against terrorism.

## The Schengen Area – Europe's travel zone

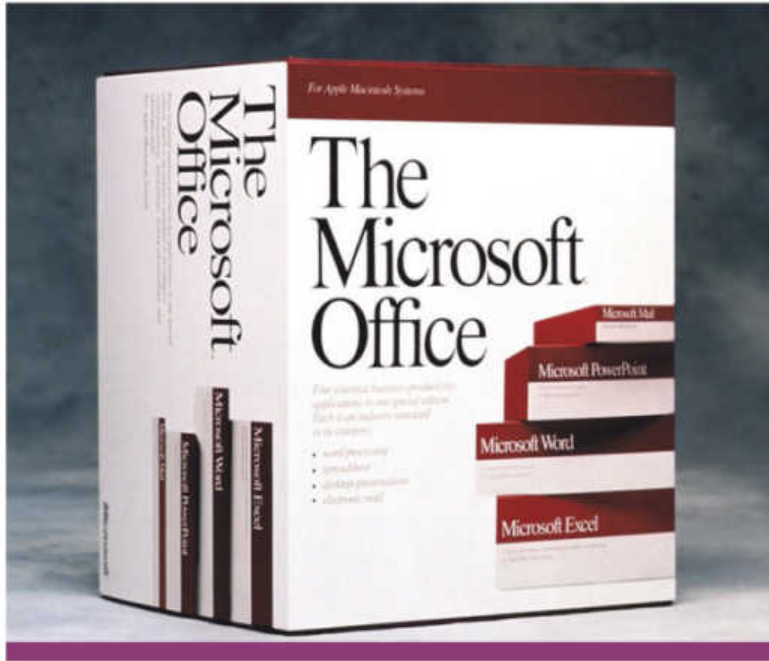
The Schengen Area refers to the unified area of the (EU) nations within which one can travel without border controls. Citizens of other countries must apply for a visa if they wish to enter this area. Otherwise, it only remains for them to cross the border illegally.

### APPLICATIONS IN 2014 FROM:

|         |             |
|---------|-------------|
| RUSSIA  | 5.8 MILLION |
| CHINA   | 1.8 MILLION |
| UKRAINE | 1.4 MILLION |
| BELARUS | 0.9 MILLION |
| TURKEY  | 0.8 MILLION |

### ILLEGAL BORDER CROSSINGS (1ST HALF OF 2015)

|                        |                  |
|------------------------|------------------|
| TURKEY TO GREECE       | 132,240 THOUSAND |
| THE BALKANS TO HUNGARY | 102,342 THOUSAND |
| NORTH AFRICA TO ITALY  | 91,302 THOUSAND  |
| NORTH AFRICA TO SPAIN  | 6,698 THOUSAND   |



## Microsoft Office

Launch for Mac OS: 1 August 1989

Launch for Windows: End of September 1990

First Office programmes: Word, Excel, PowerPoint

Data medium for Office 1.0: Diskette

Unit price of Word 1.0: ca. 500 US dollars



## 1995

### Office 95

Bill Gates presents Office 95, which only runs on a 32-bit operating system

1980 1989 1990 1991 1992 1993 1994 1995

## Office in transition

The first Office was released on diskettes. Today, you don't have to install anything, thanks to web apps

# CHIP TIMELINE

## 25 Years of Microsoft Office

*Everyone's favourite office productivity tool, Microsoft Office celebrated its 25th birthday last month. We take a look at how it has evolved over time*

Word, Excel and PowerPoint are now part of the standard package of Microsoft's Office suite. However, Microsoft Office had to be born before it could attain its current status. The first Office version – Office 1.0 for Windows – saw the light of day about 25 years ago, even though it was initially only available as a

diskette.

Before that, Word, Excel and PowerPoint were only available as individual programmes; Office 1.0 and the integrated data exchange protocol made it possible for them to use each other's data. This was followed shortly by version 1.5, which was a debugged version of the same programme

that also offered a drag-and-drop function for ease of use.

In 1994, Microsoft made different Office packages available for purchase for the first time: Users could choose between the standard and professional packages. The latter featured the additional 'Access' and 'Mail' programmes. Access had already been



2015

**Office Online**

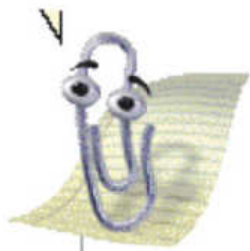
Web apps facilitate installation-free online software.



July 2002

**Open Office 1.0**

The alternative that arose from Star Office is made available to everyone for free



November 1997

**Karl Klammer**

The irritating Word assistant appears in Office 97

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

2001

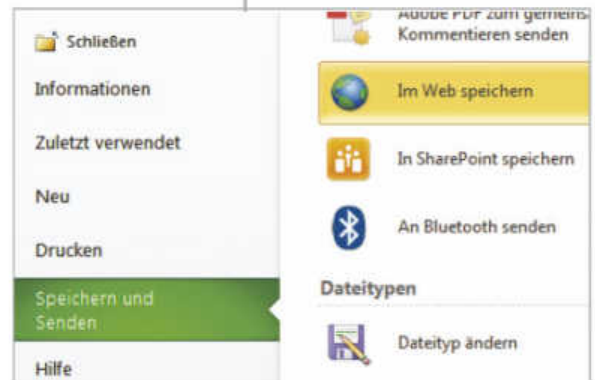
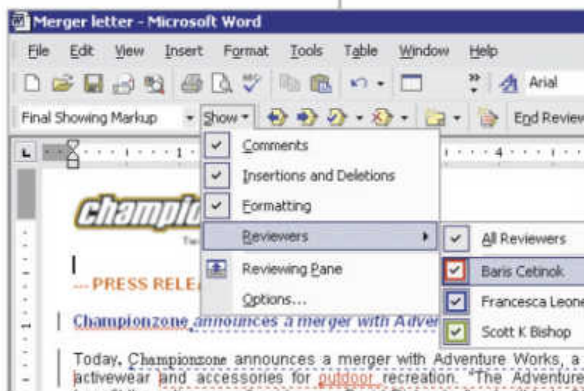
**Office XP**

For the first time, Microsoft demands an online activation over the internet

June 2010

**Office 2010**

Office documents can be saved in the cloud and shared with others via social networks



made available for MS-DOS in the year 1983, along with Word, PowerPoint and Excel.

After the Office package containing the individual programmes began to enjoy an ever-increasing amount of popularity, the seventh version of Microsoft Office was released in 1995 under the name Office 95. For the first time, all the components shared the version number 7.0. The version only supported a 32-bit system (such as Windows 95 or NT 3.51) on a 386 computer. For the next version, Office 97, a 486 PC was one of the requirements.

The month of November 1997 saw the debut of the notorious paper clip called 'Clippy', who appeared as a little helper in

Word. Another new feature of Microsoft Office 97 was that it included the 'Outlook 97' mail client. However, Microsoft made its big breakthrough with Microsoft Office 2000. The final version for Windows 95 was released at the turn of the millennium, and could, for the first time, work with Microsoft's SQL servers. It could also edit and create HTML files. Another highlight was the new optimised user interface.

With Office XP, the manufacturer made it necessary to activate the software over the internet, and added individual programmes such as OneNote and InfoPath. From Office 2010 onwards, it became possible to connect the software to the cloud and social

networks.

These days, the Office suite doesn't necessarily have to be installed, either: With Office Online, it can be used as a free web app. In parallel with all these developments, 13 different Office variants (from Home, Student and Professional to Ultimate and Office Enterprise) are now available for purchase.

These are no longer available only in the form of boxed versions. They are increasingly being offered through a subscription model as well (Office 365). The brand-new Office 2016 was released on 22 September this year. 📌



# Maps: The Who's Who In Silicon Valley

The American tech industry's heart beats in the Silicon Valley: Apple, Google, Microsoft, Facebook – they have all established their headquarters or at least major branches here. The appeal of the greats pulls start-ups towards the Bay Area, where the Valley is located.

However, the employees of the tech giants live elsewhere, predominantly in the hip neighbourhood of San Francisco. The long-established inhabitants in many areas have been forced to move out and have been displaced, the rents have exploded – the same goes for the prices in restaurants, bars and cafes.

Shuttle buses have become a symbol of this revamped lifestyle: on behalf of Google and Co., they drive its employees roughly 60 kilometres one way in the morning and in the evening, back to San Francisco – WLAN and coffee included on board.

But this development did not go ahead without resistance: the protests against Google's buses received special media attention. The demonstrators have scored a modest victory in the meanwhile: the bus company must now pay one US dollar for each stop. The city intends to collect up to 1.5 million dollars a year in this manner. 🇺🇸

## Rental price trend in San Francisco

The Zillow Rent Index reflects the average rental prices. By way of comparison: the value in New York City at the end of July was 2,187 dollars.





### Steady growth

Apple is currently building the Apple Campus 2 about one mile away from its present location. From 2017 onwards, it will have room for 12,000 employees – Apple will create around 7,400 of these jobs by 2017.



### Buses divide society

Every morning, dozens of buses shuttle between San Francisco and the Silicon Valley. The "Google buses" have become a symbol of gentrification.



PHOTOS: DPA/PICTURE ALLIANCE/FOSTER + PARTNERS/HAN DOUT (ABOVE); REUTERS/ROBERT CAL BRAITH (BELOW)  
ILLUSTRATION: THINKSTOCK/LOGGISTO (WORLD MAP); ANDREA MARGARIDA DA SILVA GRANADA (SILICON

# How Secure Is Windows 10?

*Microsoft's new Windows 10 operating system contains several features that can threaten your system's security and data protection. In this article, we will show you what to watch out for*

By Markus Mandau

It's not very often that users eagerly await the arrival of Microsoft's Windows operating system as much as Windows 10. According to an analysis by Statcounter, three percent of PC users installed the new system during the release weekend itself. The web service registered the hits on over three million websites and analysed the system information contained in them. Soon after, a large chunk of Windows users around the world were recorded to have moved on to the new Windows 10 operating system, not at all different compared to the pick-up rate when users shifted to Windows 7 from Windows XP and Windows Vista.

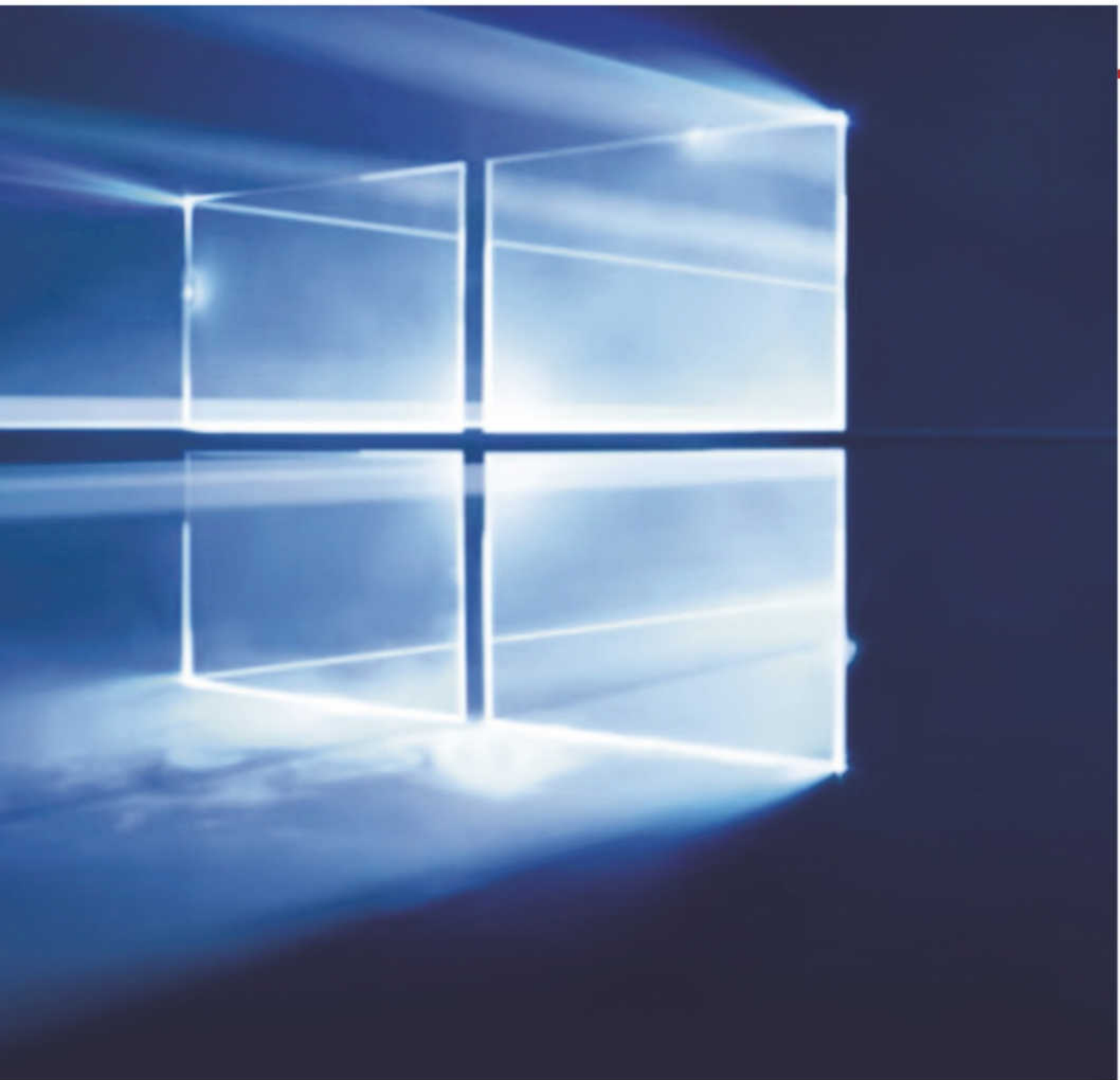
Not only that, people were jumping from Windows 7 and 8.1 to

Windows 10 because Microsoft, for the first time is offering a version leap for free, if the upgrade is installed within the first year. If you are one of those who are still using Windows 7, Microsoft's free offer will no doubt entice you to jump over too.

That being said, making the switch to Windows 10 might be a bit weird for some as the operating system is so strongly linked with internet-based services, which is very similar to how mobile operating systems work.

This affects the system's security and does not always benefit the user. An example of the change is the digital assistant, Cortana. Once activated, it analyses the behaviour of the user and based on





this, makes suggestions on what could be of interest to him. To do this, Cortana needs access to your contacts, browser history, system search and the calendar. Similar to Siri in iOS, Cortana only works when it monitors the user behaviour and sends this information to the Microsoft Cloud.

The age-old argument of “privacy vs functionality” can be commonly seen throughout the operating system’s settings options, and in the end, the user should always decide on how much data they want and need to reveal. While it is almost impossible to stop all of Windows 10’s snooping features, we take a look at some of the things you can do to reduce this.

### **System Snoopers And Virus Guards**

Even Microsoft’s own Defender antivirus software can’t be properly used without doing an analysis in the cloud. We will outline the security functions it brings with it in one of the latter pages. Microsoft has changed its update function even more radically. It is seen that in the long run that this may have repercussions on system stability, with risks for the user’s PC. Not all is doom and gloom as the data security features contained in Windows have been traditionally proven to be successful. We will also tell you if you need a separate backup security program just in case.

# Maximise Data Security

Microsoft has interconnected Windows 10 strongly with its cloud-based services. If this is a problem for you, you can disable it without too much effort



75 million installations in a span of four weeks clearly shows how much Windows users have been waiting for Windows 10. In that vein, the public outcry has been very loud due to excessive data snooping by the new operating system.

Two institutions such as the data protection official of Switzerland and the Russian Attorney General are examining the legality of these Windows settings in their respective countries.

The most drastic rumour going around right now is that Windows 10 will lock pirated games from being played on the operating system, although according to Boris Schneider-Johne, product manager for Windows 10 at Microsoft Deutschland, the section only pertains to the use of Xbox Live. Nevertheless, certain popular torrent trackers have banned Windows 10 users from their peer-to-peer file-sharing sites in which these games circulate.

## When Windows 10 Becomes Too Personal

Windows 10 certainly sends a lot of data to Microsoft when the user is tracked by the express settings upon installation. If you created an online profile, use the Cloud memory OneDrive and activates Cortana, the data traffic to the Microsoft servers will increase further. The user must be aware here that iOS and Android offer a similarly strong interconnection between online services and system functions - this is nothing new, but rather a part of the Windows modernisation. This also means that Microsoft displays personalised advertisements on the browser or online account.

Windows 7 doesn't have a clean slate either and sends data to Microsoft. This mainly pertains to security features such as the SmartScreen and the automatically-activated participation in Microsoft's SpyNet. This refers to a function of the malware protection, Defender, which sends suspicious samples to the Microsoft Cloud. The SmartScreen checks websites and EXE files loaded from the web in order to warn the user of phishing attacks in time. In order to do this, the Windows feature accesses a database, which contains information of over 1 billion Windows installations. Similar to Windows 7 and 8, both features are also active in Windows 10, but can be deactivated later.

In Windows 10, go to "Settings > Privacy" and click on "Privacy Policy" to see which information Microsoft has its hands on. This isn't just a little information. Even the "Privacy" menu is impressive with the number of functions that can be disabled. And yet, by no means can you find all the buttons in order to shift Windows to an "offline mode". The feature, Windows Customer Experience Improvement Program (CEIP) under "Feedback and diagnostics", incidentally also a part of Windows 7, also collects and sends data to Microsoft via the software currently running - with the aim of optimising its interaction with Windows. CEIP can be disabled in Windows 7 and 8 - by calling up and turning off the search function "CEIP".

## INFO

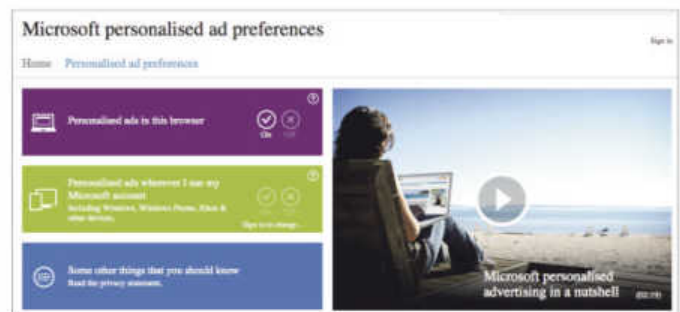
### A storm in the GTC teacup

Can Windows 10 prevent hacked games from being played? The passage in the GTC only refers to Xbox Live, says Microsoft.



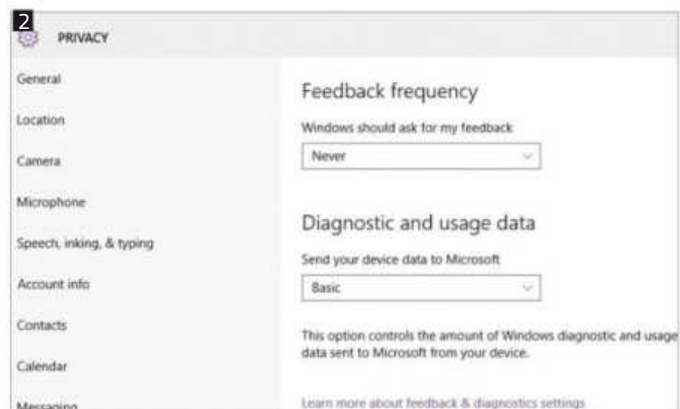
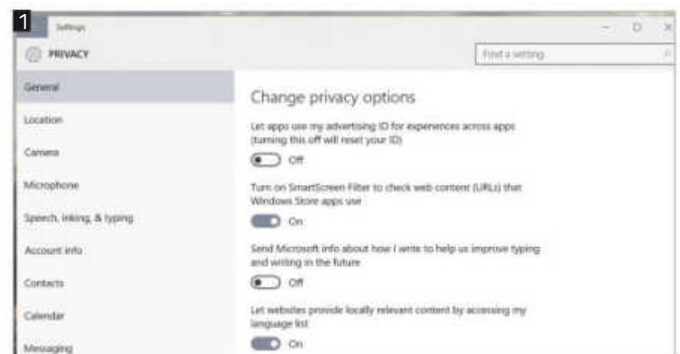
### Personalised advertising is activated

Microsoft analyses the behaviour of users who are logged in with an online profile, and displays personalised advertisements. This can be disabled under »Settings | Privacy | General«



### Go through the data privacy options

The majority of the 'snooping features' can be deactivated in the »Privacy« menu **1**. Around 30 clicks are needed to achieve this. Certain functions such as sending diagnostics data **2** on the interplay between software and OS can no longer be disabled completely.



This option is missing in Windows 10. To enable it, the only way is via extremely complicated manual work, such as creating new registry entries plus disabling the currently running system services – or using an Anti-Spy tool.

Some functions seem problematic, but turn out to be relatively harmless upon closer examination. In the "System settings", under 'Network and security > WLAN > Manage WLAN settings', WiFi Sense, known from the Windows Phone, enables the exchange of WLAN accesses with friends from social networks and contacts. This is more harmless than it sounds, since the exchanging doesn't pass on the WLAN password, and your friends only have web access in the home network. Unfortunately, in the Windows menu, you can choose to enable either all or none of your Facebook friends and Skype and Outlook contacts, which is a security issue.

## Windows Sends Data To Microsoft Regularly

In an experiment, we examined the outgoing data stream that Windows sends to Microsoft. This is relatively uncomplicated, since FritzBox, via packet recording, enables the data traffic to be captured. The tool Wireshark can then be used to analyse the recording. We have only recorded the Windows start, the first minute of operation, the opening of the start menu with the live tiles and a click into the Windows search. With an activated online profile and the help of the Windows settings, out of the box, around 200 connections to Microsoft services including update servers, Live Login, SpyNet, OneDrive and Bing were cleared out. In the second attempt, we enabled the "Privacy" settings, disabled Cortana and created an offline profile. With this, the number of connections was halved to roughly 100. In the process, Windows unnecessarily contacted the Live Login in spite of the online profile. It is therefore not enough to merely disable the services provided by the system. Microsoft says that Windows 10 establishes the connections in order to install updates and new features.

In the course of the whole spying affair, a series of AntiSpy freeware was released for Windows 10. The tools provide access to transmitting functions that you can't just disable like that. We chose O&O ShutUp10 and enabled everything there – even options that the tool doesn't recommend. Additionally, we uninstalled all the Microsoft apps that come with the system. This way, we managed to reduce the number of connections to eight, but we also had to turn off useful services such as Defender and SmartScreen. You must eventually decide for yourself whether and to what extent you want to use an AntiSpy tool. We recommend mostly programs that also undo all the settings. Moreover, you should create a system backup in advance in case something goes wrong. And not every tool is unproblematic. For example, DoNotSpy10 also recommends that you install the adware OpenCandy. You must watch out here and remove this tick, or else the anti-spyware will install its own spyware.

All in all, Windows 10 is an operating system that was launched at a time in which digital assistants monitor and analyse user behaviour. The good thing is that Microsoft is open about it and in its privacy policy, lists the kind of personal information that the system collects. All the same, Microsoft could have made it easier for its users. At the moment, it is still a couple of dozen clicks before a user can be as certain of his privacy as with Windows 7. Windows 10 would do well to have one button for a private mode, like the AntiSpy tools basically offer the user.

## The number of connections Windows 10 establishes

You can record the data traffic with a FritzBox function. Out-of-the-Box establishes around 200 TCP connections for Windows 10 within the first minute **1**. If you disable as many as possible and use an AntiSpy tool, the data traffic can be reduced drastically **2**.

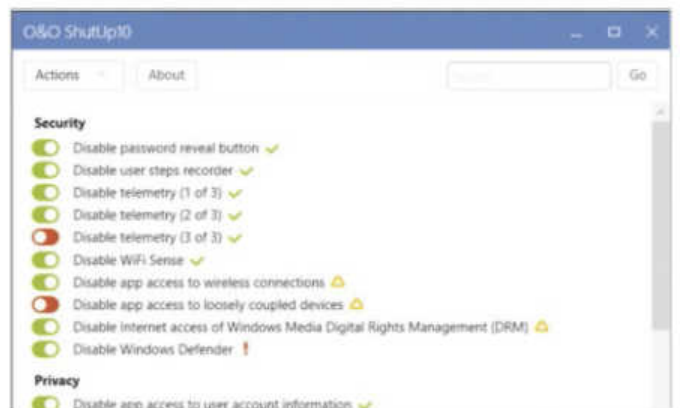
**1** TCP Conversations: FritzBox-IP\_24.08.15\_1316.eth

| Address A         | Port A | Address B                            | Port B | Packets | Bytes | Packets A |
|-------------------|--------|--------------------------------------|--------|---------|-------|-----------|
| Toshiba.Fritz.Box | 49822  | vpnweb-dbl.metron.live.com.msate.net | https  | 8       | 272   | 3         |
| Toshiba.Fritz.Box | 49825  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49831  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49841  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49885  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49898  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49916  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 50223  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 50237  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 50405  | vpnweb-dbl.metron.live.com.msate.net | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49918  | spynet.europe.microsoft.akadns.net   | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49920  | spynet.europe.microsoft.akadns.net   | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49921  | spynet.europe.microsoft.akadns.net   | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49923  | spynet.europe.microsoft.akadns.net   | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49911  | any.edge.bing.com                    | https  | 6       | 272   | 3         |
| Toshiba.Fritz.Box | 49912  | any.edge.bing.com                    | https  | 6       | 272   | 3         |

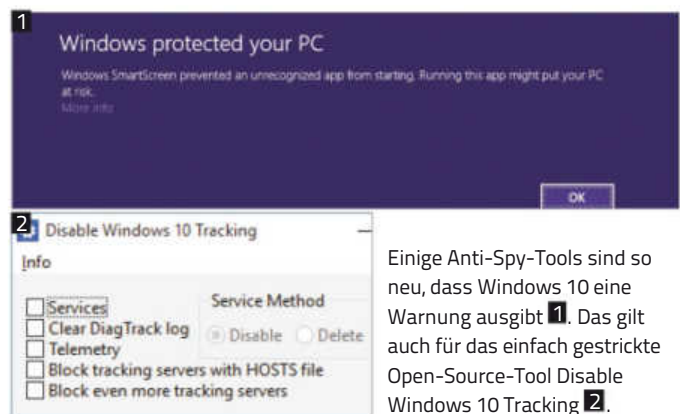
**2** TCP Conversations: FritzBox-IP\_24.08.15\_1401.eth

| Address A         | Port A | Address B                                 | Port B | Packets | Bytes | Packets A |
|-------------------|--------|---|--------|---------|-------|-----------|
| Toshiba.Fritz.Box | 51267  | dmd.metaservices.microsoft.com.akadns.net | http   | 13      | 5171  | 6         |
| Toshiba.Fritz.Box | 51289  | dmd.metaservices.microsoft.com.akadns.net | http   | 10      | 2515  | 6         |
| Toshiba.Fritz.Box | 51271  | dmd.metaservices.microsoft.com.akadns.net | http   | 10      | 2515  | 6         |
| Toshiba.Fritz.Box | 51273  | dmd.metaservices.microsoft.com.akadns.net | http   | 10      | 2515  | 6         |
| Toshiba.Fritz.Box | 51275  | dmd.metaservices.microsoft.com.akadns.net | http   | 10      | 2515  | 6         |
| Toshiba.Fritz.Box | 51247  | dsbms1.wms.windows.com                    | https  | 30      | 6704  | 11        |
| Toshiba.Fritz.Box | 51248  | DSBMSCH101101445.wms.windows.com          | https  | 18      | 6869  | 11        |
| Toshiba.Fritz.Box | 51246  | any.edge.bing.com                         | https  | 19      | 2582  | 15        |

## These tools silence Windows 10



A good example of an AntiSpy tool is O&O ShutUp10: it recommends useful measures and undoes changes



Einige Anti-Spy-Tools sind so neu, dass Windows 10 eine Warnung ausgibt **1**. Das gilt auch für das einfach gestrickte Open-Source-Tool Disable Windows 10 Tracking **2**.



Microsoft doesn't hide the data collection in Windows 10 and provides system functions in order to disable at least a few services.



Not all online services respect privacy. At the moment, though, you can only restore them using an AntiSpy tool.



# Protection From Malware

Sooner or later, Windows 10 will be the main target for a number of malware attacks. Unfortunately, not much has been done to improve its built-in anti-virus software



The dilemma is a familiar one: nine times out of ten, the system's own Security Essentials in Windows 7 or the Defender in 8 rank last in security suite tests. According to Andreas Marx, CEO of antivirus laboratory, AV-Test, this isn't going to be any better with Windows 10: "We already conducted a few tests in the last few weeks to determine whether the protection of Windows Defender in Windows 10 has been optimised. But the performance remains the same, there are no measurable differences." Defender blocked approximately 90 percent of a three-digit number of malicious samples. These were zero day attacks, i.e. malware that was so far unknown, including malicious websites and infested e-mails. "The result," declares Marx, "is significantly below the industry average."

## Security Software Compatible In Many Aspects

AV-Test has also tried all the usual antivirus solutions for private users under Windows 10. The conclusion: the core functions work smoothly as long as the user has the latest updates. "But an installation test can scarcely clarify how well the software is working," says Marx. "Only a long-term test will reveal this." A considerable number of protective program manufacturers are reluctant on the issue of compatibility. They deplore the short lead time from the release to publishing of Windows 10. Certain changes to the interfaces are also bothering them. The new Edge Browser too is a tough nut: since it still doesn't allow plug-ins, the software can monitor it only with difficulty if the HTTPS connections are encrypted. But Marx gives the all-clear here: "The protective programs tested regularly by us detect malware when Edge is used just as well as they do in other browsers in Windows 7 or 8."

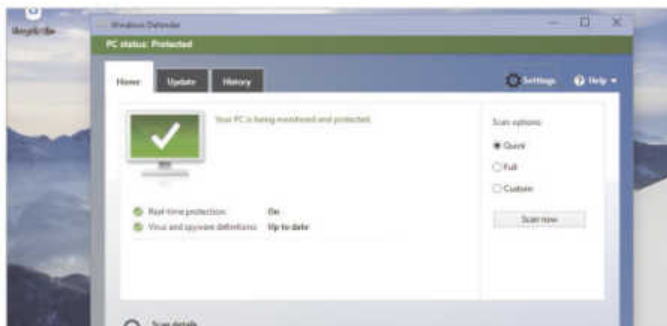
One of the new interfaces in Windows 10 is the Anti-Malware Scan Interface (AMSI). With the help of AMSI, any program can send a suspicious code that it receives from the web, and discovers in its working memory area, to the malware scanner. If the user hasn't installed an external security solution, Defender steps in. AMSI helps in detecting malicious scripts for which there is no signature, because virus guards have problems with detecting packed or encrypted malware scripts when they are downloaded from the web. Their malignancy is revealed only when they are unpacked and loaded on to the RAM.

Malware requires security gaps in order to remove the protective measures of Windows. Microsoft has made improvements here and updated its Bug Bounty program at the same time as it released Windows 10: hackers or security researchers who detect a loophole and send it exclusively to Microsoft will receive premiums two times higher. Whether and the extent to which this measure is successful cannot be answered, but one can hope that more gaps are now communicated to Microsoft in advance.

## INFO

### Windows' Defender with shortcomings

The malware guard, Defender, provided by Microsoft, isn't only similar to the version contained in Windows 8. Initial tests show that the detection rate hasn't improved either.

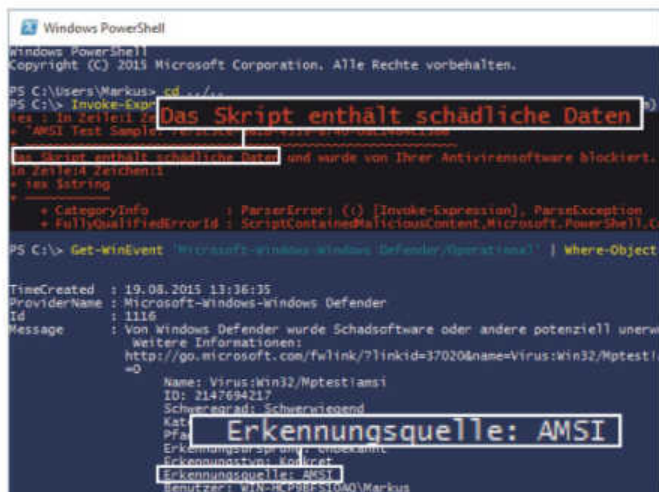


### DETECTION RATE FOR ZERO DAY MALWARE IN WINDOWS 10



### AMSI: A new tool against viruses

A new feature in Windows 10 is the Anti-Malware Scan Interface (AMSI). Windows programs can use it in the background to instruct the virus scanners installed virus scanners to check suspicious script codes.



### Lots of money for new safety gaps

Microsoft has updated its Bug Bounty program in Windows 10: hackers get twice as much money if they notify Microsoft of Windows gaps in advance.




|                | Microsoft   | Mozilla              | Google               | Yahoo      | Facebook       |
|----------------|-------------|----------------------|----------------------|------------|----------------|
| Program name   | Bounty      | Client Bug Bounty    | Vulnerability Reward | Bug Bounty | whitehat       |
| Minimum bounty | US\$500     | US\$500              | US\$100              | US\$50     | US\$500        |
| Maximum bounty | US\$100,000 | More than US\$10,000 | US\$20,000           | US\$15,000 | No upper limit |

+ Old security suites basically also run on Windows 10. A new interface improves the malware detection.

— Even in Windows 10, the integrated virus guard, Defender, has a poorer detection rate than its competition.


# Automatic Updates

Forced updates keeps Windows 10 constantly up to date, But this also means that in case update errors occur, it is possible that the users will be left with a broken operating system

 Windows 10 distributes system functions updates immediately, not only on Patch Tuesday. Moreover, the redesigned update function has done away with the division into security patches and optional updates. Nothing is optional from now; the update option cannot be turned off in the "Settings" via "Updates and security". The user can choose here whether the system performs them automatically in the background or informs him if a restart is required. In theory, it makes sense, since new updates are installed immediately on all computers. But in practice, several users have had bad experiences with the update function.

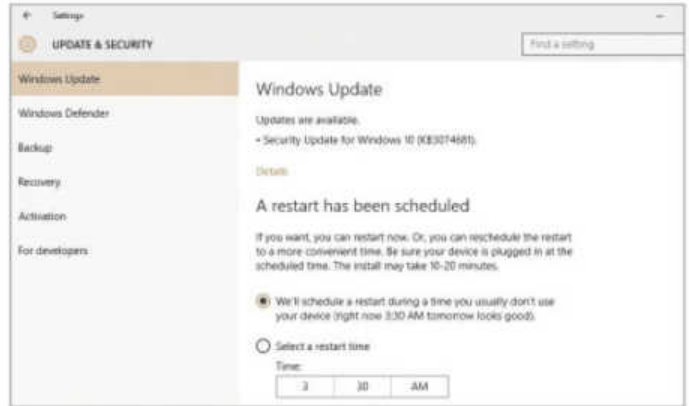
Only last year, Microsoft delivered a series of faulty patches, which sent quite a few PCs into an infinite reboot loop, which the users had to repair with Windows' Safe Mode. Admittedly, the flood of errors receded somewhat in 2015, but in May, two faulty driver patches for displaying fonts brought Windows 7 to its knees again. With Windows 10, you're betting that in the future, Microsoft will come to grips with such problems. To be precise, the ones betting are those who have installed Windows 10 Home – the majority of private computers. In the Home version, only the compulsory automatic driver update in the control panel can be disabled: an option that Windows 7 already had. The less-distributed Pro versions allow the user to postpone the function updates by four months. Security patches are installed promptly as usual. Versions installed in companies can extend the time period to twelve months. Whether Pro users should make use of it or not is debatable because they then do away with useful Windows improvements. AntiSpy tools, in addition, offer to disable the update feature completely. At the same time, they will give you a warning before disabling, since they also block security patches.

## Trust Towards Windows Is A Must

Microsoft has hidden another new feature in the "Advanced options" of the update menu, under "Choose how updates are delivered". By default, the option enabled is that Windows 10 doesn't receive updates only from Microsoft servers, but also from other computers surfing the Internet – a single, large peer-to-peer network that distributes updates. This is also a bet on the future, since a security gap here can cause major damage. If you want to avoid this scenario, you should disable the function. Microsoft has also been criticised with respect to its new update policy that it hardly ever gives information on which faults the patches fix. Microsoft has responded with the following: even Home users can see, for instance, which modules an update is installed for. Before long, users will be able to disable even the compulsory updates of the installed Microsoft apps via the Store Account. But this will do nothing to change Microsoft's unwavering stance on compulsory updates. 

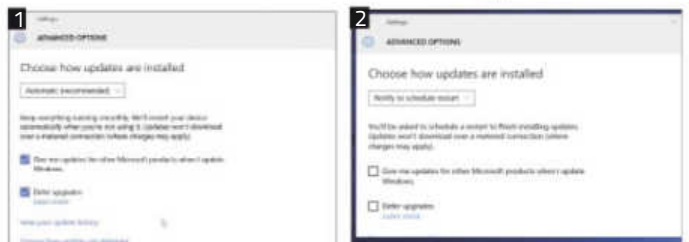
## The patch compulsion is installed

Windows 10 always installs updates automatically. The user can only decide here whether he wants to restart the system himself.



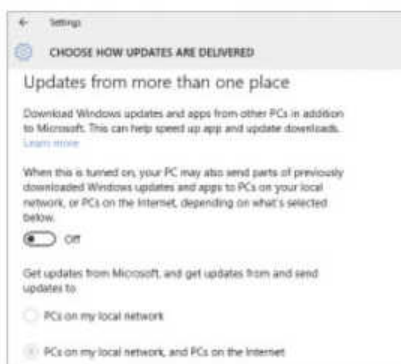
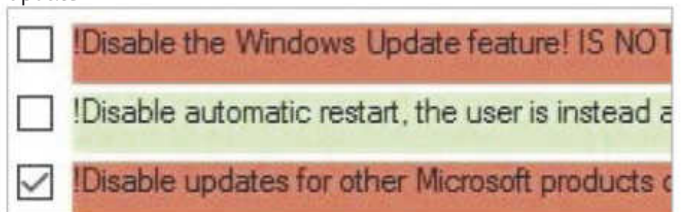
## Only the Pro version can stall updates

The automatic update doesn't come into effect immediately in the Pro version. The user can postpone Windows updates by up to four months **1**. The Home version, however, doesn't have this option **2**.




## Disable Windows updates using a tool


AntiSpy tools such as Win10Privacy also deactivate the update function. This isn't recommended as a way out of the compulsory update.



## Updates via the peer-to-peer network

The distribution of updates is active ex-works via a peer-to-peer network that connects Windows 10 computers. This potential security risk should be deactivated.

 All available Windows updates are installed immediately and automatically close security gaps that have become known

 Quite a few updates have proved to be prone to error. The user must hope that this changes in Windows 10.

# know the future

## COVER STORY

Our main feature of the month which gives an in-depth coverage of today's most exciting technological issues and trends

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Our handy guide provides you with the application know-how to further enhance your IT experiences

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# read CHIP

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# TEST LAB: The Tools

Here at the CHIP Test Labs, we adhere to the high requirements set by the CHIP International Testcenter standards. This means that everything here -- from our own personal knowledge and to our trusted tools of the trade -- are meant to provide the most optimised, unbiased and comprehensive review to every product that comes through our doors. As thus, our test bed tools are specifically picked to get the most out of every test we perform



## Intel Platform

### Motherboards

Intel DZ77GA-70K  
MSI Z87 MPower

### Processors

Intel Core i7-3770K  
Intel Core i7-4770K

### Graphics Processing Unit

MSI GeForce GTX 980  
GAMING 4G

### CPU Cooler

Master X6



## AMD Platform

### Motherboards

ASUS Crosshair V  
ASUS A88X-Pro

### Processors

AMD FX-8150  
AMD A8-3850

### Graphics Processing Unit

ASUS Radeon R9 290X

### CPU Cooler

Cooler Master Hyper 212  
EVO



## PSU, Storage & RAM

### Power Supply

Cooler Master Silent Pro  
Hybrid (1300W)

### Storage

Western Digital Black<sup>2</sup> Dual  
Drive  
Western Digital My Book  
Live Duo

### Memory

Kingston HyperX  
KHX1600C9D3K4/16GX  
Kingston HyperX FURY  
HX318C10FWK2/8  
Kingston HyperX Predator  
HX430C15PBK4/16

## Benchmark Software

### Operating System

Windows 7 Ultimate  
(64-bit)

### Futuremark

PCMark 8  
3DMark

### Industry Standard Benchmark Tools

AIDA64  
SiSoftware SANDRA  
Specy  
Unigine Heaven

# TEST LAB



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## CHIP Awards



### CHIP Editors' Choice Award

Awarded to products that receive unanimous endorsement from all CHIP editors for its overall brilliance



### CHIP Outstanding Award

Reserved for products that combine astute technical performance with good quality and design



### CHIP Recommended Award

Given to products that possess singular quality worthy of a recommendation

## Ratings

Each product review is rated on a scale of 1 to 5 for different key parameters:



**PERFORMANCE** : Refers to the efficiency of execution

**FEATURES** : Rates the abilities and unique characteristics available

**DESIGN** : Varies according to product. Finished products - form factor and build quality. Hardware components - layout, size and cooling solution. Software - user interface

**VALUE** : Calculated from the performance and features of the product in relation to the price





### NAS Server For Growing Businesses

The Synology DS716+ packs a lot of punch while maintaining an extremely compact body, and is an ideal product for the demanding professional user whether they need a wide array of applications or a file server able to handle multiple simultaneous requests within an encrypted environment. The NAS server comes with 2GB of RAM, two Gigabit LAN ports, and a quad-core 1.6GHz CPU capable of being clocked up to 2.08GHz. Moreover, it features three USB 3.0 ports for higher data transmission and one eSATA port as an extensive external backup option.

#### Synology DS716+

**Contact:** Build Technology Supply Sdn Bhd

**Phone:** (03) 7955 1136

**Info:** [www.synology.com](http://www.synology.com)

### A Lil Bit Of Deluxe

Building on the concept of natural crystals, the body has a multi-faceted texture with 500+ polygons that excites your senses and gives better grip. The ZenFone 2 Deluxe has an incredibly slim profile, being 3.9mm at the thinnest edge but still able to house some powerful hardware such as an Intel processor and 4GB of RAM. It also features a 13MP PixelMaster camera with a f/2.0-aperture lens that captures stunning, high-resolution photos with zero shutter lag. The industry-leading Low Light mode employs pixel-merging technology to capture up to 400%-brighter photos at night or in low light scenes without the need for flash.

#### ASUS ZenFone 2 Deluxe

**Contact:** Dynamics Distribution Sdn bhd., ECS Astar Sdn Bhd

**Phone:** 03 8024 2100, 03 6286 8222

**Info:** [www.asus.com/my](http://www.asus.com/my)



### Have Some Flair



The SanDisk Ultra Flair USB 3.0 Flash Drive comes in a sleek and sophisticated durable aluminium metal casing, which protects it against the wear and tear of everyday use. It comes in capacities ranging from 16GB up to 128GB and is an ultra-fast flash drive offering up to 150MB/s read speeds. Using USB 3.0, users can spend less time waiting to transfer files as the SanDisk Ultra Flair USB 3.0 Flash Drive can transfer a full-length movie in less than 30 seconds, and transfer high-resolution photos and videos 15 times faster than USB 2.0 drives.

#### SanDisk Ultra Flair USB 3.0 Flash Drive

**Contact:** Ingram Micro Sdn Bhd, Vector Digital Sdn Bhd

**Phone:** (03) 7940 8888, (03) 2143 2822

**Info:** [www.sandisk.com](http://www.sandisk.com)

## Protecting What's Important

The Targus Grid High Impact Slipcase is refined with stylish silhouettes, offering a contemporary yet professional carrying solution. The anti-slip and detachable shoulder strap provides secure and stable over-the-shoulder carrying option, allowing great freedom to adjust the case to a comfortable and personalised fit. It also enables users to choose their favourite way to carry the slipcase by hand, or placed in another bag. The slipcases feature magnetic closures and a zippered front pocket that offers storage for quick-grab items, while the larger back pocket can comfortably accommodate a tablet and other printed materials.

### Targus Grid High Impact Slipcase

**Contact:** Ban Leong Technologies Sdn Bhd., Innoteq Apex Sdn Bhd, M-Link system (M) Sdn Bhd, Servex (Malaysia)

**Phone:** (03) 7956 6300, (03) 9286 5128/5768, (03) 7728 9003, (03) 8024 6688

**Info:** [www.targus.com/my/](http://www.targus.com/my/)



## Unleash Your Savage Beast

Kingston's HyperX Savage DDR4 is available in a kit of eight with each DIMM containing 16GB of 2666MHz RAM. It joins a family of other previously announced Savage DDR4 memory from 2133MHz to 3000MHz in various single modules and kits from 4GB to 64GB capacities. The high-speed HyperX Savage is the perfect RAM for gaming, video editing and 3D rendering and has built-in XMP ready profiles that are optimised for Intel Core i5 and i7 processors, as well as Intel 100 Series and X99 chipsets, enabling users to easily overclock by selecting a memory profile without any adjustments in the BIOS.

### Kingston HyperX Savage DDR4

**Contact:** Amble Action Sdn Bhd., Convergent Distribution(M) Sdn Bhd., Ingram Micro Malaysia Sdn Bhd

**Phone:** (03) 7665 3939, (03) 2144 1881, (03) 7952 8188

**Info:** [www.kingston.com](http://www.kingston.com)



## Packing A Whole Lot Of Juice

The Lenovo VIBE P1 is the answer to all your battery life issues, sporting a 5,000mAh battery it is no pushover when it comes to battery life. Not only that, the VIBE P1 has an OTG-charging feature that allows you to connect any USB-connected device such as Bluetooth devices and other smartphones, and charge them using the VIBE P1 as a quasi-power bank. Not only does it have a lot of juice in it, the VIBE P1 houses a Qualcomm Snapdragon 615 1.5GHz 64-bit octa-core processor and 2GB of RAM for that seamless smooth experience we always long for.

### Lenovo VIBE P1

**Contact:** Lenovo Technologies Sdn.Bhd

**Phone:** 1 800 80 8575

**Info:** [www.lenovo.com/my/en](http://www.lenovo.com/my/en)





## Just A Touch Of Wireless

Building off the success of the Logitech K400, the K400+ is here to replace its predecessor and features a responsive integrated touchpad with adjustable cursor control, making it a compact all-in-one keyboard and mouse selection. Perfect for HTPC's when all you need is already on the keyboard so navigating and typing couldn't be any easier. Also designed for the modern living room in a neutral grey, the Logitech K400+ features a slim design that makes it easy to store. With the pre-installed batteries it provides up to 18 months of endless hours of entertainment without interruption.

### Logitech Wireless Touch Keyboard K400+

**Contact:** Ingram Micro Sdn Bhd., MCL Sdn Bhd., M-Link Sdn Bhd., Kaira Technologies Sdn Bhd

**Phone:** (03) 7955 8188, (03) 8023 3800, (03) 7728 9003, (03) 7955 3669

**Info:** [www.logitech.com/en-my](http://www.logitech.com/en-my)

## Gadget Or Gear?

Collaborating with Alessandro Mendini, Alessandro brings his taste, humour and sense of colour to the Gear S2. The Gear S2 comes with a durable stainless steel body that sits slim and sleek on your wrist and customising the watch face or changing watch bands is easy. Navigate the Gear S2 by touch and turning the bezel to scroll through long e-mails, zoom into a map and play the next track. Furthermore, the smartwatch has S Health which tracks your fitness activities daily in addition to your heart rate and water vs. caffeine intake.



### Samsung Gear S2

**Contact:** Samsung Malaysia Electronics Sdn Bhd

**Phone:** 1 800 88 9999

**Info:** [www.samsung.com.my](http://www.samsung.com.my)



## More Is Always Better

In conjunction with the release of the Microsoft Surface Pro 4, Microsoft redesigned their docking station to accommodate the growing needs of the current generation. Featuring four USB 3.0 ports for high-speed transfer speeds, two Mini DisplayPort to connect external monitors for multi-tasking, and a 1 Gigabit Ethernet Port for a fast wired connection. It only weighs 550g which is convenient for carrying around and is compatible with the Surface Book, Surface Pro 3 and of course Surface Pro 4. The docking station requires an external power supply so you will need to plug it into a wall.

### Microsoft Surface Dock

**Contact:** Microsoft Malaysia

**Phone:** 1800 886 295

**Info:** [www.microsoft.com/en-my/](http://www.microsoft.com/en-my/)



## Premium In Your Palm

The Xperia Z5 Premium is a flagship device and the world's first ever smartphone with a 4K resolution display. The best of Sony TV technologies delivered into a smartphone, a super-vivid and sharp display, right in the palm of your hand, packing a 4K Ultra HD display into a 5.5-inch smartphone. Not only does it display 4K videos, it's also capable of recording videos in high-resolution 4K combined with Sony's Handycam technologies, including SteadyShot you can count on having beautiful video footage. Connect instantly over WiFi using DLNA, or an MHL 3.0 connector to stream your pictures and videos to your 4K TV.

### Sony Xperia Z5 Premium

**Contact:** Sony (Malaysia) Sdn Bhd

**Phone:** 1 300 88 1233

**Info:** [www.sony.com.my](http://www.sony.com.my)



## Across The Tech Seas

Plantronics, a world leader in unified communications with equipment used by NASA under their portfolio, brings their expertise into the office environment. The Plantronics Voyager Focus UC is the first wireless Bluetooth stereo headset in the industry with active noise-cancellation (ANC) technology that reduces noise in open, collaborative and remote workplaces. The headphones provide all-day comfort and includes features such as intuitive smart sensor technology, audio alerts, wideband audio, and hi-fi stereo. The headset support Class 1 Bluetooth with adaptive power to allow connectivity of up to 150 feet while preserving battery life.

### Plantronics Voyager Focus UC

**Contact:** Ban Leong Technologies Sdn Bhd

**Phone:** (03) 7956 6300

**Info:** [www.plantronics.com](http://www.plantronics.com)

## For The Rugged Worker

Jabra's latest Bluetooth headset, the Jabra STEEL is specifically designed for rough working environments. Jabra has created a highly durable headset to meet the specific needs of those with the toughest jobs, whether on-site in high winds, covered in dirt or under a kitchen sink. The headset is tested rigorously, by exposing it to high drops onto hard surfaces, testing it for water and dust ingress, as well as vibration, temperature and squeeze testing. Noise cancellation technology is featured on the headset with dual-microphones listening to the surrounding environment and isolates your voice.

### Jabra STEEL

**Contact:** Advance Digital Solutions Sdn Bhd., Ingram Micro Sdn Bhd

**Phone:** 03 8076 4833, 03 7952 8084

**info:** [www.jabra.com](http://www.jabra.com)





## Budget Friendly

KENXINDA is a newly emerging brand in Malaysia which produces incredibly affordable handphones. Starting out as traders for mobile phones and accessories, it was not soon that KENXINDA entered into the business stage of self-research and development. The KENXINDA A6 sports a 5-inch IPS LCD and a 1.3GHz quad-core processor, together with 1GB of RAM and 8GB of built-in memory. It also features an 8MP rear camera for capturing important moments and a 2MP front camera for selfies, while everything is powered by a 2,500mAh battery.

### KENXINDA A6

**Contact:** KENXINDA Malaysia

**Phone:** 0182002929

**Info:** [www.kenxinda.com.my](http://www.kenxinda.com.my)

## A Big Red Pyramid

When the amount of wireless devices increase dramatically at home or in the office, there is a demand for a faster network to bring smoother gaming, video streaming and VoIP experience to all devices at the same time. Introducing the D-Link DIR-885L, the company's first 802.11ac Wave II router, which is also an AC3150 MU-MIMO Wireless Dual-Band Gigabit Cloud Router. Thanks to the MU-MIMO feature that comes along with AC Wave II technology, the DIR-885L allows multiple users to transmit and receive data concurrently which results in faster access to the network.

### D-Link DIR-885L

**Contact:** Advancenet Technology Sdn. Bhd., Ingram Micro Sdn. Bhd., Lab Seven (M) Sdn Bhd

**Phone:** (03) 8070 3633, (03) 7952 8188, (03) 80758811

**Info:** [www.dlink.com.my](http://www.dlink.com.my)



## Curved Immersion

See the world come to life on the new BRAVIA S8500C 4K Ultra HD TV. Featuring a curved screen that provides the perfect blend of immersion and comfort. Available in both 55 and 65-inch, the BRAVIA S8500C surrounds you with stunning pictures that are four times the detail of Full HD. Furthermore, its slim and gently contoured screen ensures that visuals look lifelike, regardless of where you're positioned in the room. The TV also features a powerful 4K Processor X1 chip, making picture burst to life with crystal clear clarity and amazing colour contrast.

### Sony BRAVIA S8500C

**Contact:** Sony (Malaysia) Sdn Bhd

**Phone:** 1 300 88 1233

**Info:** [www.sony.com.my](http://www.sony.com.my)

### A Premium Compact Camera

The PowerShot G5 X is built with the latest Canon imaging technology and comes with a large 1.0-inch 20.2-megapixel CMOS sensor that renders high sensitivity for superior image quality. The camera features a 24-100mm (35mm equivalent) 4.2x optical zoom lens, providing the casual user with sufficient coverage in varied shooting scenarios. This versatile range covers wide-angle shots for group photography, in tight enclosed spaces and telephoto range to get closer to distant subjects. The circular 9-blade composition and large aperture of f/1.8 on the PowerShot G5 X, enables beautiful bokeh effects in macro photography.

#### Canon PowerShot G5 X

**Contact:** Canon Marketing Malaysia Sdn Bhd

**Phone:** (03) 7884 6000

**Info:** [www.canon.com.my](http://www.canon.com.my)



### Bending Like Beckham

The gentle curve of the Philips Brilliance Curved display, puts you at the centre of the desktop for a truly immersive experience, like never before. Brilliant in performance, the monitor features MVA Display for wide viewing angles and deep contrast levels together with a Full HD display for crisp detailed images. AMD FreeSync is supported by the monitor for effortlessly smooth gameplay and also lesser eye fatigue with Philip's Flicker-free technology. It sports HDMI, DisplayPort and MHL for enjoying media on your desktop or from your mobile device. Not to mention, an easy to navigate on-screen menu and SmartImage presets for easy optimised image settings.

#### Philips Brilliance Curved (279x6QJSW)

**Contact:** Ban Leong technologies Sdn Bhd

**Phone:** (03) 7956 6300

**Info:** [www.philips.com.my/c-m-pc/monitors](http://www.philips.com.my/c-m-pc/monitors)



### Power Packed With Features

This motherboard offers an enhanced experience and the best in productivity and reliability, the Z170A SLI Plus motherboard is here to satisfy even the most avid of gamers. Boasting double the speed of USB 3.0, USB 3.1 Type-C is ready to connect the latest devices with ease and with high read and write speeds. The motherboard support both NVIDIA SLI and AMD Crossfire with improved Steel Armor PCI-e slots to support those heavy graphic cards. The Z170A SLI PLUS uses Military Class 4 components to ensure reliability and stability that every user can rely on.

#### MSI Z170A SLI PLUS

**Contact:** JW Power Marketing Sdn. Bhd., Mediaforte (Malaysia) Sdn. Bhd., Advancenet Technology Sdn. Bhd.

**Phone:** (03) 2148 1307, (03) 7960 6868, (03) 8070 3633

**Info:** [my.msi.com](http://my.msi.com)





# Acer One 10

Price: RM999

Contact: Acer Sales and Services Sdn.Bhd

Phone: 1 800 88 1288

Info: www.acer.com.my

Operating System: Windows 10

Display: 10.1 inch (1,280 x 800)

Processor: Intel Atom Z3735F

Connectivity: USB 2.0 x1, MicroUSB x1, MicroSD x1, Micro HDMI x1

Memory: 2GB DDR3

Storage: 32GB Flash + 500GB HDD

PCMark 8 (Home): 1,832 points

PCMark 8 (Work): 2,041 points

PCMark 8 (Creative): 1,825 points

Performance:

Features:

Design:

Value:



## On A Scale of One To 10

By Nazrin Zain

Acer's affordable detachable notebook is a decent computer

Convertible and detachable notebooks are all the rage these days, with a variety of manufacturers releasing devices one after the other every other month. The unfortunate thing is that for the most part, these notebooks are often out of the price range of many consumers. With this in mind, Acer recently launched an affordable option in the form of the Acer One 10.

Powered by a 1.33GHz Intel Atom Z3735F processor, the Acer One 10 features a 10.1 inch 1,280 x 800 pixel IPS display. It is also equipped with 2GBs of RAM and 32GBs of storage space, and a 6,000mAh battery which can be recharged via a microUSB port on the tablet portion.


We have zero complaints about the One 10 as far as build quality is concerned. For its price, we're pleasantly surprised by how well the device is built, especially the brushed metal chassis of the tablet and the sturdiness of the detachable keyboard.

Yes, the One 10's innards are located inside the chassis itself, allowing users the freedom to use the device as a notebook, tablet, or even

a standup display. What Acer has done here is to allow the tablet portion of the One 10 to be clipped on to the keyboard dock forwards and backwards, which we find to be quite nifty.

As we've mentioned, the keyboard dock is built to be very sturdy, and while it does not have additional batteries built in, it does have an additional 500GB storage space, which is actually great as the storage space on the tablet itself is quite lacking.

Performance-wise, the Acer One 10 is a good device to use for day-to-day tasks such as browsing, document editing, watching videos and such. That being said, if you're using a browser like Chrome or Firefox, and have one too many tabs open, the lag is quite noticeable. The touch display is quite zippy however and we didn't detect any input lag when using it in tablet mode.

That being said, the display is quite dim even at maximum brightness, and the glossy nature of the display means that it's susceptible to light glare. However, it compensates by having a pretty decent battery life of about 4-5 hours during our time with it. 



The Acer One 10 comes with a keyboard dock that is sturdy and easy to use. It also comes with 500GBs of storage space



Despite being a detachable, the Acer One 10 comes with a decent amount of ports



Build quality  
Battery life



Prone to lag

### CHIP CONCLUDES

The Acer One 10 is a detachable notebook that is super affordable, and is reliable for menial day-to-day computing tasks.

# HP Elite x2 1011

**Price:** RM5,510.94

**Contact:** Hewlett-Packard (M) Sdn. Bhd.

**Phone:** 1 800 22 6998

**Info:** www.hp.com/my

**Operating System:** Windows 7 Professional

**Processor:** Intel Core m-5Y51

**Graphics:** Intel HD Graphics 5300

**Memory:** 4GB **Storage:** 256GB SSD

**Others:** USB 3.0, DisplayPort 1.2, 3.5mm headphone jack,

Fingerprint sensor, microSIM port, microSD slot

**Dimensions:** 298 x 206.1 x 20.8mm **Weight:** 1.55kg

**PCMark Work:** 1,651 points

**PCMark Home:** 1,994 points

**PCMark Creative:** 1,737 points

**Performance:**

**Features:**

**Design:**

**Value:**



## Sturdy But Not Too Burly

By Nixon Ng

Like two peas in a pod, the tablet and power keyboard make an amazing combination to provide long battery life

Tablets have found a home within almost any household within the recent years, they help with productivity, entertainment and convenience. But at the end of the day, a laptop is what's best for professional work. The HP Elite x2 1011 combines the best of both worlds, being a tablet that can dock into a power keyboard thus making it a laptop as well. Both the tablet and keyboard will have their own separate battery, so the keyboard can act as a power bank of sorts to extend battery life.

The HP Elite x2 1011 sports an Intel Core m-5Y51 from the Intel Core M series, which are known to be power efficient and makes a great addition to the tablet, during use there weren't any noticeable lag and performing everyday office tasks were smooth as silk. In addition, the tablet also sports an 11.6-inch touchscreen which we found responsive and made navigating the tablet not an issue. A Wacom pen is also provided along with the tablet, the pen fits into our hands nicely which made it comfortable to use for writing notes and a bit of scribbling for fun.

On the rear of the tablet, the power button is placed in an easy to reach spot with the SIM card and microSD card slot hidden under a cover just slightly below it, and also found on the front is a 5MP camera which takes decent pictures. Whereas on the front, there is a 2MP camera which can be used for video conferencing. The HP Elite x2 1011 is built to be rugged, although slightly heavy. It is also really well made, giving it a few knocks you can feel the sturdiness, and not to mention that it is aesthetically pleasing.

When the tablet is hinged onto the keyboard, it gains extra connectivity such as DisplayPort 1.2, USB 3.0, 3.5mm jack for headphones, and a docking port for additional dongle support. The keyboard also comes with a fingerprint sensor which you can use to lock your tablet, and speaking of the keyboard, the keys are backlit and provide a nice tactile feedback when pressed, while the keyboard features almost every key you will ever need.



The tablet is detachable from the keyboard allowing you retain a sense of portability



The power keyboard not only works as a docking station for additional inputs but as an additional battery as well

+ Sturdy  
Battery Life

— Weight

### CHIP CONCLUDES

The HP Elite x2 1011 is a companion you can consider if you travel a lot for work. Although a bit heavy, when separated the weight shouldn't become much of an issue. It makes up for its weight with a sturdy body which you can feel just by touching. It also has excellent battery life as the keyboard also acts as a battery pack of sorts.

# MSI Z170A Gaming M9 ACK

Price: RM1,899

Contact: JW Power Marketing Sdn. Bhd., Mediaforte (Malaysia) Sdn. Bhd., Advancenet Technology Sdn. Bhd.

Phone: (03) 2148 1307, (03) 7960 6868, (03) 8070 3633

Info: my.msi.com

Slot: Z170

CPU: Intel LGA1151

RAM Slots: 4

RAM Type: DDR4

Ports: USB 2.0 x2, USB 3.0 x2, USB 3.1 x2, HDMI x1, DisplayPort x1

PCMark 8 (Home): 4,214 points

PCMark 8 (Creative): 4,694 points

PCMark 8 (Work): 3,951 points

Performance:

Features:

Design:

Value:



## Superior Gaming and Overclocking

By Nazrin Zain

MSI goes full steam ahead with this high-end enthusiast motherboard

MSI has been going strong in the gaming scene lately, and their push to claim the industry as theirs continues as they announced a true heavyweight of an enthusiast motherboard in their corner with the MSI Z170A Gaming M9 ACK.

MSI keeps to its black and red board design with the Z170A M9 ACK, complete with a Dragon-inspired heatsink. The board has the standard support for four DDR4 DIMMs, supporting up to 64GBs in dual-channel configuration. The board also has six SATA III 6.0Gbps ports, two SATA Express ports and two M.2 ports for M.2 SSDs. As far as GPU support goes, the PCIe slots supports multi-GPU configurations for both NVIDIA SLI and AMD's CrossFireX.


At the rear, the I/O ports include two USB 2.0 ports, two USB 3.0 ports and two USB 3.1 ports, one each of USB Type-A and USB Type-C. Other ports include HDMI, DisplayPort, audio ports as well as WiFi adapter connectors.

The Z170A M9 ACK motherboard is clearly built with overclocking in mind as not only does

the motherboard have support for water-cooling blocks, it also has additional extras such as a one-touch overclocking button, premium power phases, as well as socket designs that are made to withstand high voltages.

With MSI's OC Engine 2, you can also fully maximise your overclocking potential by selecting from a wider range of BCLKs, so that you don't go over the top too soon. With the correct cooling solution, going over 5.0GHz is no problem at all, and even using our in-house cooler, we managed to hit 4.8GHz on our processor without dabbling too much with the settings.

Gamers and audiophiles will also be happy to know that MSI has stuff in store for them too, as features like Killer LAN, Gaming Hotkey, Nahimic Audio Enhancer and Xtreme Audio DAC are all included in the motherboard as well.

We especially love the extra touch that MSI gave to it in the form of the back cover, which actually helps out a lot in not getting our hands pricked by solder points when setting up the PC. 



The MSI Z170A Gaming M9 ACK motherboard comes with a back cover that ensures the board doesn't suffer from bending issues



The board also comes with a suitable number of I/O ports

+ Performance Features — Price

### CHIP CONCLUDES

MSI has done an extraordinarily good job on the Z170A M9 ACK motherboard. It's packed with a lot of features that overclocking enthusiasts, gamers and audiophiles would all enjoy.



# CM Storm Xornet II

**Price:** RM169

**Contact:** Ban Leong Technologies Sdn Bhd,

Build Technology Supply Sdn Bhd

**Phone:** (03) 7956 6300, (03) 7955 3699

**Info:** [www.coolermaster.com](http://www.coolermaster.com)

**Sensor:** Avago 3320 Optical Sensor

**DPI:** 250-3,500Hz

**Lift Off Distance:** <3mm

**Programmable Buttons:** 7

**Dimensions:** 105.4 x 76.6 x 37.2 mm

**Weight:** 80g

**Performance:**

**Features:**

**Design:**

**Value:**



## Enter The Xornet

By Nazrin Zain

CM Storm's latest mouse is perfect for the penny-pinching gamer

Gaming mice come in all shapes and sizes these days, and CM Storm is no different. Cooler Master's gaming accessories arm is finally on the move again after the company did a rebrand, and with the Xornet II, CM Storm is looking to simplify some things to make gaming a more inclusive affair.


At first glance, the Xornet II's design does look a bit odd, considering how we're likely used to a typical mouse's more elongated shape. The Xornet II's somewhat circular shape doesn't look like it'll be very comfortable to hold if you have large hands, and it shows. For those who have smaller hands however, may just appreciate things like the finger rest, and how the body itself lends to the contour of your hands.

The Xornet II features five buttons, two at the top, two at the side, one scroll wheel and a set of DPI buttons that have been preset to 350 to 3,500 DPI in five different levels. It uses an Avago 3320 optical sensor which is nearly flawless for control and speed, claims CM Storm. During our tests with games such as Team Fortress 2 and Counter Strike GO, once we managed to find the DPI sweet spot, it indeed is

a joy to use as we racked up the frags.

The buttons on the Xornet II are Omron switches, which are great to press and last a very long time. In fact, CM Storm estimates that each button on the Xornet II will function for at least 5.0 million clicks before any problem can be seen. Software has also seen some nice changes, with a simple interface design that allows you to customise your DPI settings as well as change the lighting colours on your scroll wheel.

Comfort and grip are important aspects of a great gaming mouse, and CM Storm does not disappoint here as it has included rubberised side grips to complement the Xornet II's nicely ergonomic chassis that combine to provide gamers with hours of comfortable gaming experience.




Another great feature the Xornet II has in store is the Lift of Distance (LOD) feature which allows you to set the sensor to work on a variety of surfaces, be it mousepads, wood or even silicon. The best part is that you don't need to adjust anything from the software as it is already included in the mouse itself. 



The Xornet II sports a rubber grip and ergonomic design that allows gamers to play comfortably for long hours com



It also comes with DPI-changing buttons that allows users to switch the sensitivity settings

-  Easy DPI switch
-  LOD feature great for variety of surfaces
-  Not for large hands

### CHIP CONCLUDES

The CM Storm Xornet II may be a bit small for gamers with larger hands, but when it fits, it does so like a comfortable glove that allows you to game for hours without feeling fatigue.

# MSI GTX 950 GAMING 2G

Price: RM943

Contact: JW Power Marketing Sdn. Bhd., Mediaforte (Malaysia) Sdn. Bhd., Advancenet Technology Sdn. Bhd.

Phone: (03) 2148 1307, (03) 7960 6868, (03) 8070 3633

Info: my.msi.com

GPU: NVIDIA GTX 950

Memory: 2GB GDDR5/128-bit

Ports: 3x DisplayPort, 1x DVI, 1x HDMI

Slot Size: Dual-slot

Dimensions: 270 x 137 x 37mm

Weight: 602g

3D Mark

Fire Strike: 5,626 points Fire Strike Extreme: 2,903 points

Performance:

Features:

Design:

Value:



## The Midrange Mauler

By Nixon Ng

When high-end gaming just isn't your cup of tea

MOBA games are truly booming in popularity recently, and with only a need for midrange-graphic cards to play the game, it's hard not to be enticed. Fitting right into that range is the GTX 950 from NVIDIA, designed and tailored for MOBA gamers. MSI's GTX950 GAMING 2G comes with their signature black and red Twin Frozr V cooler, that delivers less noise and better heat dissipation.

The MSI GTX950 GAMING 2G is the perfect graphic card if you're into mid-range gaming, as it finds itself with a perfect balance between performance and power. It also comes with different profiles which allows you to tweak your gaming experience. Each mode/profile will provide varying clock speeds, so beginning with the OC Mode the GTX950 has a base clock of 1127MHz and boost clock of 1317MHz, whereas the Gaming Mode will have slightly lower base clock of 1102MHz and boost clock of 1279MHz. And finally the Silent Mode with an even lower clock of 1026MHz and 1190MHz respectively,

for the times you want to play silently.

MSI has put three DisplayPort ports on their card which is quite excessive as most monitors still use either VGA, HDMI and DVI ports openly, maybe it's for a possibly future but right now we think it would be better to have an additional DVI or HDMI port instead, as there's only 1 DVI and HDMI port found on the card. Moving on to the Twin Frozr cooling solution, the shroud is nicely done and doesn't take up much space so it'll easily fit into small form factor PC's which is a nice plus. In addition, the cooler is equipped with TORX fans which to maximise air dissipation and dispersion.

The Twin Frozr V cooler does an excellent job keeping the card cool and quiet when playing games like DoTA 2 and League of Legends, but may get a bit loud when playing much more intensive games. OC Mode and Gaming Mode noise levels are about the same regardless of what game we were playing but Silent Mode did provide a noticeable softer sound albeit lower performance. 🇲🇾



The MSI GTX 950 GAMING 2G requires 2 slots on your rig to accommodate additional inputs



The Twin Frozr V cooler does a great job keeping the card cool together with the TORX fans

+ Twin Frozr V Performance — 2GB only

### CHIP CONCLUDES

At its price it's hard to find another strong contender for this card, when it comes to performance and cooling efficiency. All-in-all if you need a card that suits your midrange gaming needs, then the MSI GTX950 GAMING 2G does a great job. Although, having 3GB of memory for multiple-displays would really be a kicker and make this card even better than it is.

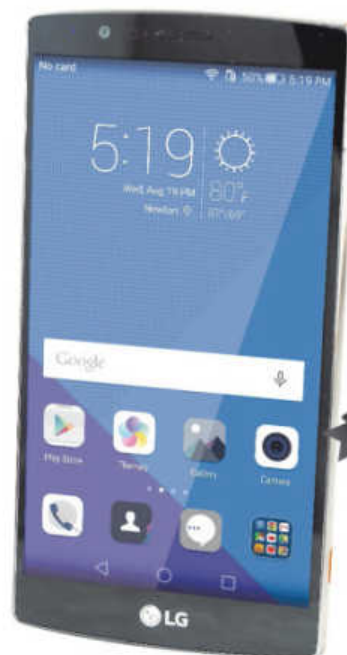
# LG G4

**Price:** RM 2,539  
**Contact:** LG One  
**Phone:** 1800-822-822  
**Info:** www.lg.com/my

**Display:** 5.5 inch (2,560 x 1,440)  
**Processor:** Qualcomm Snapdragon 808  
**Memory:** 3GB  
**Storage:** 32GB  
**Operating System:** Android 5.0 Lollipop  
**Camera:** 16.0MP rear-facing camera

**Antutu:** 49,724 points  
**3DMark IceStorm Unlimited:** 18,621 points

**Performance:**  
**Features:**  
**Design:**  
**Value:**



The LG G4's 16MP shooter is an excellent camera that takes great-looking photos both indoors and outdoors



Unlike most flagship phones, the LG G4 uses a MicroSIM card as opposed to a nano SIM card

+ Performance  
Design

— Price

## CHIP CONCLUDES

The LG G4 is a great phone that sports some pretty impressive specs, and an amazing camera. If the offerings from Apple, Samsung and Sony aren't quite you're liking, the G4 is a great model to consider.

By Nazrin Zain

# Welcome Back LG

An LG flagship phone makes a rare appearance in Malaysia

It's been a really long time since LG brought in a flagship phone into Malaysia, but the one time they did do it, we're quite glad that it's the LG G4, the much talked-about smartphone that comes with a number of bells and whistles that we're actually quite fond of.

The LG G4 is a 5.5 inch smartphone with a display resolution of 1,440 x 2,560 pixels, powered by a Qualcomm Snapdragon 808 processor with 3GBs of RAM and 32GBs of storage which is expandable via a microSD card up to 2TBs.

The phone has several claims to fame, first of which is the design of the phone itself. Unlike many, if not most phones out there, the G4's volume and power buttons are located under the phone's 16MP rear-facing camera. This allows users to easily access the buttons without having to awkwardly reach for the side of the phone, which may cause users to drop their phones.

Not only that, the G4 also sports a unique back cover, with choices include leather, metallic and ceramic back covers. Our review unit came with the much sought-after brown leather back cover, which feels

amazingly good to the touch.

Speaking of the camera, the LG G4's 16MP shooter is a delight to play with. It comes with a laser autofocus mechanism that allows users to take shots quickly without missing a moment. The camera software is excellent as well, as users are even able to shoot in manual mode, giving them a huge sandbox of options that allows them to take a photo the way they want to.

As far as performance goes, the LG G4 does not disappoint. Thanks to the Snapdragon 808 and the 3GBs of RAM built in, the phone tears through any task thrown at it without breaking too much of a sweat, be it gaming, working on a word document or watching high definition videos on it.

That being said, the battery life on the G4's 3,000mAh battery can be described as above average at best. If the phone's not being used too often beyond checking emails, social media and the occasional gaming, a full charge at 10am will probably last you to the evening, but if you're constantly checking on it, you'll be needing a car phone charger on your drive back home.





# Dell UltraSharp Monitor 25 UP2516D

Price: RM 2,119

Contact: Dell Asia Pacific Sdn Bhd

Phone: 1 800 88 0301, 1 800 88 2888

Info: [www.dell.com.my](http://www.dell.com.my)

Display Size: 25.0 inch

Resolution: 2,560 x 1,440

Connectivity: HDMI x2, DisplayPort x2, Mini DisplayPort x1, USB 3.0 x4

Refresh Rate: 6ms GTG

Touch: No

Viewing Angle: 178/178

Performance:

Features:

Design:

Value:



## A Designer's Dreams Come True

By Nazrin Zain

Dell's new UltraSharp monitors

Dell UltraSharp monitors have always been a mix of form and function, no matter which model you're getting.

Ever since its 32 inch UltraSharp with Adobe RGB support was launch, many have been clamouring for a similar model in a smaller package. Dell did just that with the UltraSharp 25 UP2516D.

As far as design goes, the UltraSharp 25 UP2516D has retained its elegant silver chassis, a mix of polycarbonate and metal that has been the hallmark off the monitor's looks for as long as we can remember it. The 25 inch panel boasts a resolution of up to 2,560 x 1,440 pixels, which is big enough for designers to work on large-scale designs with.

Similar to prior UltraSharp models, the UltraSharp 25 UP2516D comes with a variety of input and output options, which include four USB 3.0 ports, two HDMI ports which also support Mobile High-Definition Link (MHL) and two DisplayPorts, as well as a miniDisplayPort.

The panel on the UltraSharp 25 UP2516D is especially beautiful, as it is almost an edge-to-edge display, with no space wasted, making the most of the monitor's effective display real

estate. The stand also allows users to swivel and orient the monitor however they like, be it in landscape or portrait mode.

On top of that, Dell has also bundled in a KVM software which allows users to switch between computers, in case they're working on two different machines that are connected to the same monitor.

The selling point of the monitor of course is its support for Adobe RGB colour gamut, which runs at a whopping 16.7 million colours. It encompasses a huge chunk of perceivable colour space, allowing designers to play with more colours, and allows them to make better design choices when needed.

One of our favourite points about the UltraSharp 25 UP2516D is also its wide viewing angle. Dell claims that the monitor has a viewing angle of up to 178 degrees from all angles, be it left, right, top and bottom. This means that once you have your monitor set in place, if you need to show someone your designs, you don't really need to adjust the monitor to fit someone else's vantage point.



The Dell UltraSharp continues to be very generous with their display output and I/O ports



The stand allows the UltraSharp monitor to swivel and pivot in a variety of directions

+ Design Features — Price

### CHIP CONCLUDES

The Dell UltraSharp 25 UP2516D monitor is one that designers would definitely love to have. If the 32 inch UltraSharps are too large for your liking, the 25 inch display comes with all the same bells and whistles in a smaller size.

# ASUS ZenPad 10(Z300CL)

Price: TBA

Contact: Dynamics Distribution Sdn bhd., ECS Astar Sdn Bhd

Phone: (03) 8024 2100, (03) 6286 8222

Info: [www.asus.com/my](http://www.asus.com/my)

Display: 10.1-inch Led IPS Panel

Processor: Intel Atom Z3560 1.8GHz Quad-Core 64-bit

Connectivity: Bluetooth 4.0, WLAN802.11 b/g/n

Memory: 2GB

Storage: 8/16/32/64GB expandable with microSD

Operating System: Android 5.0

Camera: 5MP(rear), 2MP(front)

Dimensions: 251.6 x 172 x 7.9mm

Weight: 510g

3DMark Icestorm Unlimited: 6,656 points

PC Mark Work: 5,059 points

Antutu: 35,101 points

Performance:

Features:

Design:



## A Pad For The Family

By Nixon Ng

Mixing a great blend of style and performance, the ZenPad 10 will steal the hearts of families and fashionistas

A family that shares is a family that cares. Technology can be used for more than just entertainment or productivity, as it can also bring family members closer to each other in ways that you would never expect.


The ZenPad 10 features a large 10.1-inch LED IPS Panel that displays vivid colours and due to the IPS panel allows for wide-viewing angles which are perfect for sharing photos and videos with many people. Powered by an Intel Atom Z3560 1.8GHz quad-core 64-bit processor and 2GB of RAM, the device promises a smooth experience when it comes to navigation, photo viewing, web surfing and even some gaming.

The available storage on the ZenPad varies depending on which you choose to buy, ranging from 8GB-64GB, but the unit which we received had 32GB and is expandable through its microSD slot. It runs Android 5.0 Lollipop and features Bluetooth 4.0 and WLAN802.11 b/g/n/ and also a dual-speaker design on the front for a better audio experience.

Basic tasks such as web-surfing, viewing photos and watching videos are smooth with no noticeable lag in any cases, but when bogged down by too many applications the 2GB

of memory becomes a bit of a bottleneck. There isn't much to complain about when it came to navigating menus and applications other than the memory bottleneck, it works smoothly and seamlessly.

The audio from the ZenPad is loud, what it lacks in clarity it makes up in volume. That's not to say it's all gibberish coming out. More complex music can cause the speaker to sound less clear but genres like R&B or Pop sound great on the speakers and with great volume. The volume in turn made watching movies and videos much more enjoyable because you can always hear the dialogue going on without using a pair of headphones which is always a huge plus.

Design wise the ZenPad looks excellent, the smooth curved edges and the killer patterned back with a faux-leather feel is to die for. Although, the weight did bother us a little, especially if you're planning to carry it with a notebook or even with its additional accessories. It's not too heavy but it might be cumbersome to hold in your hands for long stretches of time. 



MicroSD and SIM card slots



The ZenPad 10 has a 5MP rear camera and 2MP front camera for taking photos and videos



Speaker Performance



Weight Memory

### CHIP CONCLUDES

The ZenPad looks great and works great, something a family should get to share their moments or just to spend that extra quality time with their kids.

# ZenFone Zoom(ZX551ML)

Price: TBA

Contact: Dynamics Distribution Sdn bhd., ECS Astar Sdn Bhd

Phone: (03) 8024 2100, (03) 6286 8222

Info: [www.asus.com/my](http://www.asus.com/my)

Display: 5.5-inch Full HD IPS

Processor: Intel Atom 64-bit

Connectivity: Bluetooth 4.0 + EDR, WiFi, NFC

Memory: 4GB

Storage: 32/64/128GB eMMC Flash expandable with microSD

Operating System: Android 5.0

Camera: 13MP (rear), 5MP (front)

Dimensions: 158.9 x 78.88 x 5mm

Weight: 157g

3DMark Icestorm Unlimited: 7,667 points

PC Mark Work: 5,684 points

Antutu: 43,767 points

Performance:

Features:

Design:



## Take A Step And Snap

By Nixon Ng

Take a walk, snap a picture, show your friends and family

Photography with mobile phones have become a fad of sorts, with the quality of cameras in phones getting better as the days go by it's not surprising how big this trend has become. Apps like Pinterest and Instagram or even Twitter and Facebook have allowed people to share their photos on social media creating a boom in mobile photography that is still rising even now.


The ZenFone Zoom is targeted for those who want to see the world up close, and is also the thinnest smartphone with 3x optical zoom. With an innovative 10-element HOYA lens arrangement for crisp detail, the camera boasts a zoom of up to 12x total magnification that promises great pictures without the need of too much digital zoom.

Sporting an Intel Atom quad-core 64-bit processor, the phone allows you to multitask and do all your activities lag-free. This is further boosted by 4GB of RAM that helps the Zoom to reach the performance levels ASUS has set out to achieve. It also runs on Android 5.0 Lollipop and features Corning's Gorilla Glass 4.

With all the bells and whistles for the camera it's obvious that we would test the camera and see what kind of images it'll give

us. The 3x optical zoom is definitely a great addition and is in the right direction for phone cameras, retaining image quality that isn't possible when using digital zoom. The camera also has many profiles that you can choose from to take pictures in different settings and scenarios.

There is also a manual mode which will give you the freedom you can usually find on a DSLR camera, such as ISO and shutter speed. Although with all these features and functions, image quality does fall short of what was expected. Pictures have a slight noise to them and when taking pictures it there is quite a big delay between shots if you want to take shots continuously.

Performance-wise the ZenFone Zoom is smooth sailing. Swiping through menus is effortless and lagless, with multi-tasking multiple apps not causing any considerable lag from our tests. The battery life is decent able to last a full day with moderate surfing and gaming. But if your battery is low, ASUS implemented their exclusive BoostMaster Technology which with its 18w charger quickly charged the phone up 100 percent in about 50 minutes from 15-20 percent. 



The 13MP camera and 3x optical zoom is beautifully built into the Zenfone Zoom and doesn't compromise the size or style



The Zenfone Zoom claims the title of thinnest smartphone with 3x optical zoom

+ Performance  
3x Optical Zoom    - Image Quality

### CHIP CONCLUDES

When it comes to hardware the Zenfone Zoom looks great on paper, it performs as it should but the camera is a tad disappointing when such great features are present, especially the optical zoom.



# WD My Passport Ultra

**Price:** RM669

**Contact:** Amble Action Sdn Bhd, Eternal Asia (M) Sdn Bhd

**Phone:** (03) 7955 1768, (03) 5613 5600

**Info:** www.wdc.com

**Storage:** 3TB

**Connectivity:** USB 3.0

**Others:** 256-bit hardware encryption, Backup software

**Dimensions:** 110 x 20.96 x 81.6mm

**Weight:** 0.23kg

**Performance:**

**Features:**

**Design:**

**Value:**



## Big Storage Small Package

By Nixon Ng

Built like a brick, WD is heading in the right direction to the hearts of consumers

Remember the days when portable hard drives could not compete in terms of storage when compared to desktop drives? Well those days have long past, and portable hard drives are now capable of rivaling desktop hard drives in terms of storage space and portability. Although more costly compared to desktop drives, portable drives allow you to carry all the data you want, anywhere you want to.

Joining our family of review units is the WD My Passport Ultra with a whopping 3TB of disk space. The packaging is simple and comes with a USB 3.0 cables and manuals which is everything you need to start using the hard drive. Did we mention it supports USB 3.0? Yes, the WD My Passport Ultra supports USB 3.0 for high-speed read and write speeds when transferring files.

Putting it to the test we used various methods such as copying a hefty amount of small files into the drive, and also copying a single large file into the drive as well. To take it a step further we also integrated TeraCopy into our test, which is a file transfer manager which most computer users might already use to replace the default Windows file transfer manager.

Starting our tests with the small files, we copied about 1TB worth of high-resolution audio into drive using the default file transfer

manager from Windows. An average speed of 120MB/s is found during the transfers which is almost three times faster than a regular portable hard drive which averages about 30-40MB/s at peak speeds, which is impressive.

Using the default file transfer manager we proceeded to use single large files to transfer over to the drive, and was welcomed by an average of 140MB/s during the transfer. When we moved on to our tests using TeraCopy we were surprised that transfer speeds were actually slower than the Windows default file transfer manager. Averaging at about 70MB/s for small files and 90MB/s for single large files.

Other than speeds we definitely commend WD on building the WD MY Passport Ultra like a brick. It's tough and rugged but the glossy surface gets easily scuffed and scratched and is noticeable under light. It also comes with 256-bit hard encryption to protect precious data. As a side note, the WD My Passport Ultra is also available in 500GB, 1TB and 2TB capacities if you really require the thinner and lighter form factor, and remember to update your USB 3.0 drivers to ensure you get the best speeds available. 📺



*The My Passport Ultra supports USB 3.0, not only is it fast, it's strong and durable and built like a rock*

+ Build Quality  
Transfer Speed

- Glossy surface  
easily scratched

### CHIP CONCLUDES

The WD My Passport Ultra definitely has some weight to it, but in return you get a rugged and durable portable hard drive that should survive the abuse people usually put their drives through when travelling.

# Olympus E-M10 MkII

**Price:** RM 4,055 (with 14-150mm lens)  
**Contact:** Olympus (Malaysia) Sdn. Bhd.  
**Phone:** (03) 6411 0000  
**Info:** [www.olympusimage.com.my](http://www.olympusimage.com.my)

**Sensor:** M4/3 MOS  
**Resolution:** 16.1MP  
**Zoom Range:** 14-150  
**Connectivity:** HDMI, USB, WiFi  
**Storage:** SD Card  
**Mount:** Micro 4/3 mount

**Performance:**  
**Features:**  
**Design:**  
**Value:**



## The OM-D Returns

By Nazrin Zain

Olympus' new micro-4/3 camera comes with many improvements

As far as cameras go, Olympus has been championing the micro-4/3ds movement like no one else has. Ever since it brought back the PEN, the company has grown from strength to strength, launching one M4/3 camera after another, and here we are, with its latest offering in the form of the Olympus E-M10 MkII.

As far as looks go, the E-M10 MkII is one of the most stylish cameras we've seen in a while, thanks to its solid magnesium alloy chassis, which also encompasses the camera's knobs and dials. The camera is available in two colours: silver and black, with the former accentuating the E-M10's curves quite a bit more than the latter.


The E-M10 MkII sports Olympus' 16.1MP M4/3 MOS sensor, and with it has also introduced a 5-axis stabilisation which actually helps in ensuring that the photos that you take are as crisp as possible. This feature also helps a lot when you're looking to record movies, reducing stuttering that is commonly seen in cameras that can record video.

You can also check how the image

stabilisation works by half-pressing the shutter button. When you do this, the image in the viewfinder is stabilised, which makes accurate framing and focusing possible even during macro or telephoto shooting.

The camera is also a fast shooter, and not only that, features a setting called Touch AF which allows you to quickly focus in and capture a photo simply by touching at any location on your screen. This, coupled with the E-M10 MkII's 8.5FPS sequential shooting mode, means that you won't be missing any shots regardless of the situation.

On top of that, the E-M10 MkII also comes with three function buttons which allow you to program a variety of quick settings on it, be it HDR, a quick ISO and exposure menu, white balance, focus peaking and more.

Image quality is also great on the E-M10 MkII, as the shots that we took were sharp, bright and colourful regardless of the lighting conditions. The camera comes with a choice of either a 14-42mm f3.5 lens, or a 14-150mm lens with similar aperture count, which suits the needs of a variety of users. 



The E-M10 MkII features a swivelling screen that allows you to take photos from tight angles



It also comes with a variety of knobs and dials that allow you to change various settings on the fly easily

+ Performance Design - None

### CHIP CONCLUDES

The Olympus E-M10 MkII features a variety of excellent improvements over its predecessors, most markedly the 5-axis stabilisation system, as well as the image quality of the camera.

# ASUS VivoWatch

**Price:** RM799

**Contact:** Dynamics Distribution Sdn bhd., ECS Astar Sdn Bhd

**Phone:** 03 8024 2100, 03 6286 8222

**Info:** [www.asus.com/my](http://www.asus.com/my)

**Display:** 1.28-inch High-Reflective TFT Memory LCD

**Connectivity:** Bluetooth 4.0

**Sensors:** 3-axis Accelerometer, Optical Heartrate, UV Light Level

**Port:** External charging dock

**Touch Screen:** Yes

**Weight:** 50g

**Performance:**

**Features:**

**Design:**

**Value:**



## Get Fit With The VivoWatch

By Nixon Ng

**Fitness band or smartwatch? Why can't it be both!?**

Smartwatches are starting to gain more traction in the market due to the convenience and features that come with them that syncs well with smartphones. A large majority of phone owners are probably using a smartphone, and smartwatches are made to pair together with smartphones to bring forth a whole new level of immersion into technology.

The ASUS VivoWatch finds itself in the middle as both a fitness band and a smartwatch, blending in a fine mix of both but also lacking in certain areas. Out of the box, the watch shows a nice mix of modern and classy, a square LCD screen with a silver bezel that catches the eye. The strap is plastic and although some may find it cheap, the plastic strap is still comfortable to wear and looks great together with the watch.

The LCD works great in many lighting conditions thanks to its HR-TFT display which uses a micro-reflective structure and high-contrast reflection technology, and because of this technology which sports low energy consumption together with Memory LCD that requires very little current for each pixel, which

allows the VivoWatch to have 'always-on' display without any sweeping images or ghosting.

To fully utilise its functions, the VivoWatch requires you to connect your smartphone to it via Bluetooth and sync both devices together. From there you can receive notifications ranging from calls, messages to emails and set fitness goals and alarms. Navigating through the different menus is as simple as swiping left and right to reach the desired screen and feature. The Heartrate sensor works fine and displayed values are pretty close with other heartrate sensors we tested with.

Notifications come in a tad slower than we hoped for and on certain occasions they don't appear at all. It's nothing too drastic that'd make us dislike it, but probably something that could be worked on. Another thing would be how notifications are handled, if there is a single message it would be displayed in full but if there are multiple messages it would just show a notification, would have preferred an option to scroll through the messages instead.



Heartrate sensor and pins for connecting the charging dock to the VivoWatch



An external charging dock is required to charge the VivoWatch and allows for a slimmer profile

+ Battery life  
Overall look and feel

- Occasional slow notifications

### CHIP CONCLUDES

There are so many things jammed into this small device, it does everything it set out to do and possibly more. Although some things could be worked on, the ASUS VivoWatch is still a great smart wearable that's worth diving into.



# Western Digital Blue SSHD

Price: RM 888

Contact: Amble Action Sdn Bhd, Eternal Asia (M) Sdn Bhd

Phone: (03) 7955 1768, (03) 5613 5600

Info: www.wdc.com

Size: 3.5 inch

Storage size: 1TB, 4TB

Connectivity: SATA III 6.0Gbps

Performance:

Features:

Design:

Value:



## Blaze Through Computing Tasks

WD's Blue SSHD combines fast performance and high-capacity storage

By Nazrin Zain

Western Digital has been at the forefront of digital storage medium for some time now, and this time, they have announced a brand new SSHD in the form of the Western Digital Blue SSHD, which promises fast performance, as well as high density storage all in one packaging.

As far as looks go, the Blue SSHD looks like any other hard drive you've seen from Western Digital, except this time it has a blue label. The drive itself comes in two storage variants, including 1.0 TB and 4.0TB.

What's different in the Blue SSHD compared to the other HDDs Western Digital has to offer you ask? For starters, built into the hard drive are 8GBs of NAND storage modules, which is what SSDs use for their storage.

The difference here is that the Blue SSHD uses an advanced set of algorithms to track the SSHD's data usage, prioritising frequently-used data for fast access by placing these data in the SSD portion of the drive. In other words, these algorithms do not in any way

interfere with how the drive stores data, it simply picks the ones that are frequently used by the users, and places them inside the flash storage portion of the drive, allowing users to access them faster.

Unfortunately, users will have no control over which data goes inside the flash storage portion of the Blue SSHD, as the algorithm will automatically detect the most used files and store them there. Users will also have to wait for a while to see some performance changes using the drive, as the algorithm does require some time to see which data needs to be stored in the SSD.

During our time with it, once we populated the drive with a few software and files, we noticed that some software boot up much faster than others, which does lend credence to WD's claims of the SSD portion improve performance.

Whilst this drive is great to be used as a boot drive, we highly recommend that you use it alongside an SSD, and install your software on this drive instead.



The WD Blue SSHD comes with the standard SATA data and power connectors to power it up

+ Performance Storage size — No control over SSD storage

### CHIP CONCLUDES

By pairing SSD-like performance with massive hard drive capacity, WD has created an intelligent hybrid drive that truly offers the best of both worlds.

# ASUS ROG Maximus VIII Impact

**Price:** RM 1,285

**Contact:** Build Technology Supply Sdn Bhd, Servex(Malaysia) Sdn. Bhd.

**Phone:** (03) 7955-3699, (03) 8024-6688

**Info:** www.build.com.my, www.servex.com.my

**Slot:** Intel LGA 1151

**CPU:** Intel Z170

**RAM Slots:** 2

**RAM Type:** DDR4

**Ports:** USB 3.0 x4, HDMI x1, LAN x1, USB 3.1 x2

**PCMark 8 (Home):** 4,332 points

**PCMark 8 (Creative):** 4,485 points

**PCMark 8 (Work):** 3,921 points

**Performance:**

**Features:**

**Design:**

**Value:**



## Small In Stature, Big In Power

By Nazrin Zain

ASUS' Maximus VIII Impact packs a punch in a compact form factor

When ASUS sent us the Maximus VIII Impact to review, we didn't expect much out of it because Mini-ITX motherboards are typically known to be made for small form factor PCs that end up being a home theatre system to watch movies and do computing on the big screen. The company is looking to change all that with this ROG-branded pocket-rocket of a motherboard.

Owing to its extremely small board print, the Maximus VIII Impact comes with fewer components that we're so used compared to a regular-sized ATX board. That being said, the board's two DDR4 DIMM slots are capable of supporting up to 32GBs of DDR4 RAM, which can be overclocked to a whopping 4,133MHz. It also has four SATA III 6.0Gbps ports, which is capable of powering a decent amount of built-in storage. The board also has only one PCIE slot, which makes sense considering the cases these types of motherboards usually get thrown into.

At the back, the Maximus VIII Impact has four USB 3.0 ports, a HDMI port, audio out

ports as well as a LAN port and USB 3.1 type A and Type C ports, which is quite impressive considering its relative size.

Despite being a Mini ITX board, the Maximus VIII Impact does not come with its own set of features. For starters, it has ASUS' SupremeFX audio card built in, allowing audiophiles and gamers alike to be immersed in an soundstage like no other. It uses Nichicon capacitors, as well as an ESS ES9023P DAC to give you that life-like sound quality that no other motherboards in this form factor can give you.

For enthusiast who want to overclock, the Maximus VIII Impact also comes with MicroFine Alloy chokers, PowIR Stage MOSFETs and 10K metallic capacitors to ensure that the components stay strong even as you push the processor to its limits.

During our time with the motherboard, we had little issues getting it up and running. In fact, we didn't feel any difference at all when using this tiny board, when compared to other boards that are easily twice or three times its size. 📺



Being a mini-ITX motherboard doesn't mean the Maximus VIII Impact is stripped of ASUS' bells and whistles



The Maximus VIII Impact comes with a generous amount of I/O ports

+ Performance Features

— Price

### CHIP CONCLUDES

The performance of the ASUS ROG Maximus VIII Impact motherboard belies its size. If you're looking to build a compact badass gaming rig, this is definitely the go-to motherboard.

# ASUS DSL-N12HP

**Price:** TBA

**Contact:** Advancenet Technology Sdn. Bhd.,  
SDS Distribution Sdn. Bhd

**Phone:** (03) 8070-3633, (03) 7782-4700

**Info:** www.advancenet.com.my, www.sds.com.my

**Ports:** 1x ADSL Port, 4x LAN Port

**MIMO:** Yes

**Network Standard:** IEEE 802.11b/g/n

**Encryption:** 64/128-bit WEP, WPA(TKIP/AES), WPA-PSK(TKIP/AES), WPA2(TKIP/AES), WPA2-PSK(TKIP/AES), Mixed WAP2/WPA(TKIP/AES), Mixed WAP2/WPA-PSK(TKIP/AES)

**Dimensions:** 179 x 128 x 28mm

**Weight:** 320g

**Performance:**

**Features:**

**Design:**



## Small But Stands Tall

A modem and router packed into a single device, saving space yet giving excellent performance

Routers that come together when you register with an ISP are decent and are usually enough for day to day use. But there are times when the router's wireless range just isn't cutting it for your house with many walls rooms and walls. So naturally you'd look for a new router, and you you'll need one with big range to have entire coverage of your home. With the release of the RT-N12HP users have been asking for an ADSL interface and ASUS delivers.

Jump into the ASUS DSL-N12HP, a great basic and easy-to-use router that comes with two 9dBi high gain antennas for wider wireless coverage and combines both a modem and router together into a single device. The modem router supports Streamyx and UniFi and is easy to setup, so you won't need much computer knowledge to get it up and running. MIMO is present on the router at 2.4GHz 2x2 while the router's operating frequency is 2.4GHz. We should also mention that this is the first 9dBi high-gain antenna DSL model available.

Setting up the router was quick and easy, connect all the corresponding cables to the router, and the router into the computer. From

there access the router through your web browser by keying in the default gateway and you are welcomed by a web-based interface. After entering your login credentials, it will then proceed to setup your Wireless SSID so the rest of your home/office can connect to the internet.

With the setup out of the way and the internet up and running, we tested the coverage and had satisfying results. With the two 9dBi antennas, the range available from the router is excellent, reaching throughout the office and home with a constant 'Very Strong' or 'Excellent' wireless strength. You can also setup multiple SSID's which allows for flexible wireless access control, such as creating SSID's for guests and for your personal use.

For parents who wish to control your children's internet access, the DSL-N12HP allows you to do exactly that. Get your child's MAC Address from his/her device and you can set a time restriction based on days and also when to start and end the blocking time. If you just want your child to not visit certain sites it can also be done through the routers URL Filter function. 📺



Combining a modem and router to bring you the DSL-N12HP, it has 4x LAN ports and 1x ADSL/RJ11 port



Although the antennas are long, the device itself has a nice slim profile



9dBi Antenna  
Easy Setup  
Multiple SSID



None

### CHIP CONCLUDES

Whether at home or at the office, the DSL-N12HP does everything you need a modem and router to do and does it brilliantly without a hitch.



# Canon 7D Mark II

**Price:** RM6,399

**Contact:** Canon Marketing Malaysia Sdn Bhd

**Phone:** (03) 7884 6000

**Info:** www.canon.com.my

**Sensor:** Dual-Pixel AF CMOS

**Resolution:** 20MP

**Connectivity:** HDMI, USB

**Storage:** Compact Flash, SD Card

**Mount:** Canon EF Mount

**Performance:**

**Features:**

**Design:**

**Value:**



## Return of The Prodigal Camera

By Nazrin Zain

The Canon 7D Mark II is a true blue upgrade to its predecessor

Canon's EOS 7D DSLR camera was regarded as one of the best prosumer cameras of its time. Five years later, DSLRs, point-and-shoots and the like have already evolved, and the 7D became a relic of a bygone era. Canon however thinks otherwise, and has given it several new upgrades, to be reborn as the Canon 7D Mark II.

The new 7D Mark II sports a brand new 20MP Dual-Pixel AF CMOS sensor, which is similar to the sensor used in Canon's own 70D DSLR. Besides improved image quality, what this brings to users is an improved AutoFocus performance, which works in tandem with the 65 point cross AutoFocus system, featuring Canon's Intelligent Tracking and Recognition system that is first seen in the Canon 1DX.

Our review unit came with a Canon 24-70 F3.5-5.6 L lens, and the quality of photos that we took with it was simply stunning, regardless in bright daylight or the dim environment of indoors. Bumping up the ISO count to around 3,200 to 6,400 region did not affect image quality much, which is a true testament to how much of an upgrade the 7D Mark II is over its predecessor.

The AF on the 7D Mark II is truly a wonder as it locks in to a scene almost as soon as you half press on the shutter. The fact that there are 65 AF points on the camera also makes it easy to adjust your AF point on the fly, so you won't be missing a beat when it comes to taking that all-important shot.

Speaking of all-important shots, the 7D Mark II also can shoot up to about 10FPS at a go, which is great especially if you're shooting fast moving objects or people, which is great if you're photographing events such as a football match or a racing tournament.

The 7D Mark II is also very adept at shooting movies, as it is capable of recording 1080p movies at 60fps, with a choice to record in a couple of video file formats.

Our one complaint about the 7D Mark II however comes in the form of its shutter button. When we brought it out on assignments and such, the lack of distinction between half press and full press of the camera was very discernible, and often times we fully pressed the shutter button by accident when all we wanted to do was just refocus a scene.



The buttons and dials on the 7D Mark II are strategically placed for easy access to a variety of options



The camera also supports use of both Compact Flash and SD cards as its mode of image storing media

+ Image quality Fast autofocus    - Price Shutter button

### CHIP CONCLUDES

The Canon 7D Mark II is a camera that budding and professional photographers alike could appreciate. Its speedy autofocus, excellent image quality and variety other bells and whistles are sure to have them excited to give this shooter a try.

# Plantronics BackBeat SENSE

Price: RM729

Contact: Ban Leong Technologies Sdn Bhd

Phone: (03) 7956 6300

Info: www.plantronics.com

Frequency Response: 20Hz – 20kHz

Wearing Style: On-the-ear

Connectivity: Class 1 Bluetooth, 4.0+EDR

Wireless Range: 100 metres (Class 1)

Microphone: Yes

Weight: 140g

Performance:

Features:

Design:

Value:



## Moving With Sound

By Nixon Ng

Everything you need on a single headset, from calls to media controls it's all available to you at arms length


When you're in the office or just sitting about at home, your legs will get weary from doing nothing, but you just can't bear to tear yourself away from your music. Maybe you're on a call but want to prepare some dinner or do some chores around the house? Well either in the office or relaxing at home the Plantronics BackBeat SENSE is quite an interesting headset to have.

The headset that was sent to us came in Espresso Black which looks really snazzy and stylish, something you won't be embarrassed carrying around in public. The buttons are conveniently placed on both sides and are easily accessible. The volume knob on the BackBeat SENSE is unique where you rock it back and forth to increase or decrease its volume. Basically all controls are found on the headset itself so you don't need any additional remotes or controls.

The BackBeat SENSE has a nifty feature where it detects when you have it on or off, pausing and resuming your music accordingly, so when we took breaks from work, all we had to do was slip it off our ears and presto. The comfort on the headset is

great, the pads are soft and uses memory foam to conform to your ear shape and sits comfortably on your ears. Also, the headband when under pressure will pull the earpads closer to have a tighter and secure fit which is a great addition.

We also tested the headset's range by walking around the office, and satisfyingly it held up to all our tests. Even behind walls or doors the headset could give commands and receive audio seamlessly, though we did encounter a time where the headset started stuttering but that only happened once throughout our entire test phase. The battery life is great on the headset and it lasted approximately 16-18 hours which was close to its rated battery life.

There's also an interesting OpenMic feature where at a push of a button the headset uses its mic to let you hear your surroundings so you don't need to take off your headset for conversations. Finally, the BackBeat SENSE is incredibly light and not only that, it sounds great with music and movies making it a great companion when you're either working or just lying about enjoying your free time. 



When turned on the headset will tell you what its battery level is.



Control everything with a single hand from pausing to resuming and changing the volume.

+ Light Sensors Wireless — None

### CHIP CONCLUDES

If you're in need of a lightweight headset and constantly on the move around your home or office the Plantronics BackBeat SENSE is a mighty fine companion to have on your head.

# Avermedia Live Gamer EXTREME

Price: TBA

Contact: AD One Technology (KL) Sdn Bhd

Phone: (03) 7987 4310

Info: [www.ad-one.com.my](http://www.ad-one.com.my)

**Video Input:** HDMI, Component

**Video Output:** HDMI (pass through from HDMI/Component input)

**Audio Input:** HDMI, RCA (L/R)

**Capture Resolution:** Uncompressed 1080p@60fps

**Supported Resolution:** 1080p (Max: 1080p@60fps), 1080i, 720p, 576p, 576i, 480p, 480i

**Encode Format:** MP4 (Codec: H.264 + AAC)

**Dimension:** 145.3 x 97.2 x 29mm

**Weight:** 182g

**Performance:**

**Features:**

**Design:**



## Stream It Live

Become the gamer you always wanted to be, and let the world see what you want them to see

E-sports is currently a booming trend with the rise of games such as League of Legends, DoTA2, Starcraft 2 and CS:GO many professional gamers are always streaming their games on the internet. Many gamers, Pewdiepie, Markiplier and Dunkey, to name a few are popular names on the internet who stream the games they play on platforms such as Twitch and YouTube and have gathered cult followings.

The advent of such a trend has seen many gamers doing the same, with many using doing so as a source of revenue. But to truly create content of quality, you need the right equipment, such as a good microphone and of course a capture card so you can provide viewers with high quality video for them to enjoy. Avermedia has been long known for producing capture cards and have some of the highest rated capture cards in the market.

Knowing that this is a growing trend we were able to get our hands on one of Avermedia's latest capture card, the Avermedia Live Gamer EXTREME. The ability to capture at 1080p at 60fps is valuable especially since YouTube has begun support for videos recorded

at 60fps. Why this is valuable is because videos recorded at 60fps is much more fluent and pleasing to the eyes and is sought after by those with internet speeds that can support the buffering of said videos.

The Live Gamer EXTREME is meant as a streamer tool, meaning its potential lies in streaming your content onto the internet with smoothness and fluidity. It is supported across multiple platforms and works with PC, Xbox360 and PS4 which are the platforms which we used to test them on. Streaming and editing software is bundled together with the capture card and is used to control and edit your stream and recordings.

Testing it on the Xbox 360, the video capture was without any problems and flawlessly streamed to Twitch for friends to watch. The bundled software did a great job allowing us to edit the videos slightly before streaming it to the internet. While testing the capture card with the PS4 was smooth sailing as well. Although using it on PC might require some tweaking because you might get a black screen if the capture card detects it as a HDCP protected signal.



For audio inputs the Live Gamer EXTREME has an auxiliary input for music and another for an external microphone



The Live Gamer EXTREME requires USB 3.0 to work, and has inputs for HDMI and Component

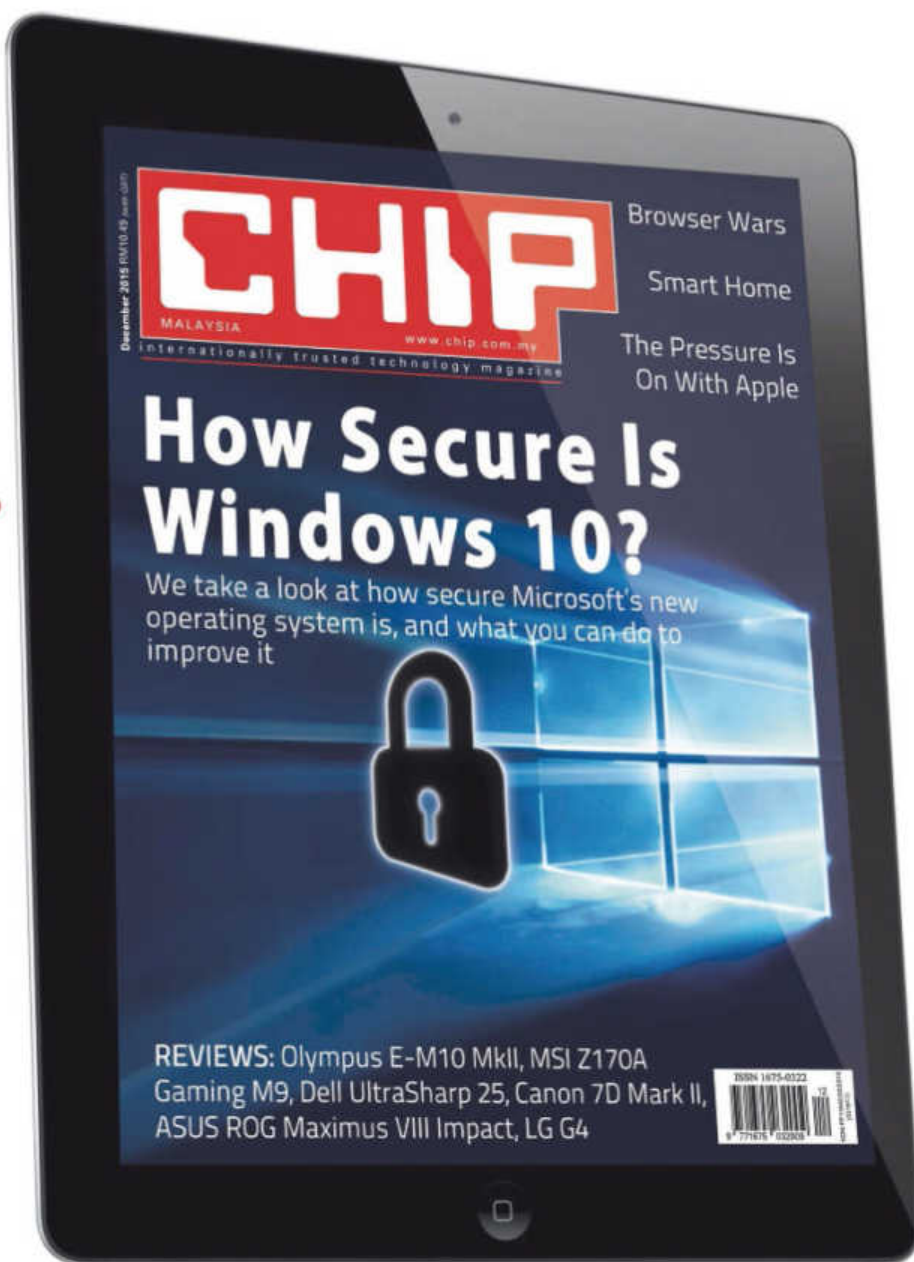
+ Capture quality Software — None

### CHIP CONCLUDES

If you want to venture into the world of streaming, the Avermedia Live Gamer EXTREME is worth the money you're investing because it supports a wide variety of formats and captures them flawlessly.



**YOUR  
FAVOURITE I.T.  
&  
TECHNOLOGY  
MAGAZINE IS  
ALREADY  
AVAILABLE  
DIGITALLY!**



### **Here's how to order CHIP Malaysia to go :-**

#### **Step 1: Download Zinio**

CHIP Malaysia will be available on Zinio, one of the most popular digital newsstands on the internet. They have an iOS app as well, which is where CHIP Malaysia is sold.

Tap on the App Store icon on your iPad and search for 'Zinio'. The first entry should be Zinio Magazine Newsstand & Reader. Click on it and wait for it to be downloaded and installed.

#### **Step 2: Creating a Zinio account**

You will need to have an account with Zinio to download magazines from its store. Zinio will keep a record of what you've purchased and if you restore your iPad, all you need to do is to re-download your content. The best part of all? Re-downloads are free!

You can create a Zinio account from the app itself or log on to [www.zinio.com](http://www.zinio.com) to do it. All you need is an email address and a password.

#### **Step 3: Download CHIP Malaysia**

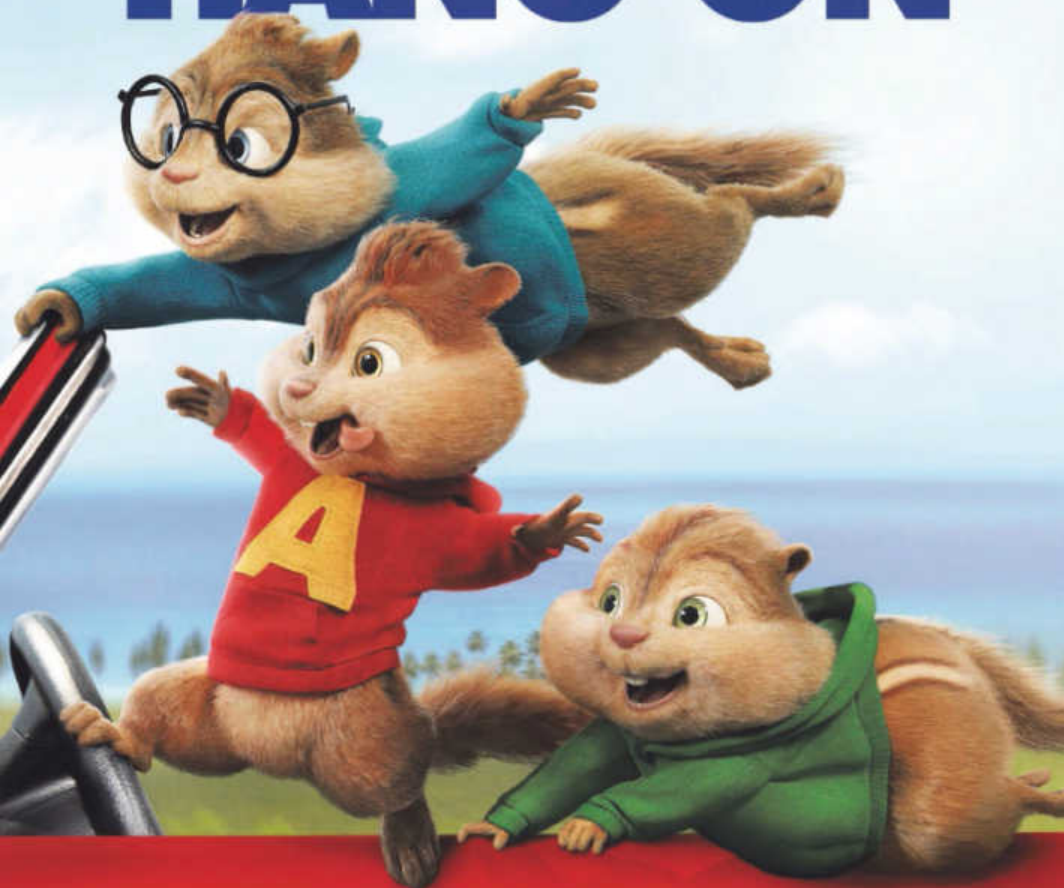
Launch Zinio and you'll see three tabs at the bottom. Click on the 'Shop' tab and search for 'CHIP Malaysia'. When you see our cover, that means you're close to getting your hands on CHIP Malaysia's iPad magazine.

You have the option to get the newest issue or subscribe to 12 issues. Select an option and pay for it via PayPal or Credit Card.

#### **Step 4: Read**

Once that is done, tap 'Library' at the bottom bar and you'll see the cover of the issue you bought. Tap on it and you're done! Zinio will let you read while it downloads the remaining pages. Enjoy!

# HANG ON



## ALVIN AND THE CHIPMUNKS™

THE  
**ROAD CHIP**

IN CINEMAS 24 DECEMBER

BAVinMovie AlvinMovie.com

## ALVIN AND THE CHIPMUNKS CONTEST

### Terms & Conditions:

1. Contest open to all Malaysians except the employees of Online Dynamics (M) Sdn Bhd & Twentieth Century Fox Film (Malaysia) Sdn Bhd.
2. Only original entry form is accepted.
3. The judges decision is final and no correspondence will be entertained.

4. Prizes are not transferable or redeemable for cash.
5. Closing Date: **15<sup>th</sup> January 2016**
6. Send your entries to:  
**Online Dynamics (M) Sdn Bhd/  
AATC MOVIE Contest  
A-5-07, Block A, Neo Damansara,  
Bandar Damansara Perdana, Jalan PJU 8/1  
47820 Petaling Jaya, Selangor Darul Ehsan.**

## ALVIN AND THE CHIPMUNKS CONTEST

**1st Prize**  
8" Alvin Flush  
Cap  
Fluffy Dice  
Lunch Bag  
Double Passes x 4

**2nd Prize x 2**  
Car Sticker  
Foil Cup  
Keychain  
Double Passes x 2



## ALVIN AND THE CHIPMUNKS CHIP CONTEST

Questions:

- 1) ALVIN AND THE CHIPMUNKS MOVIES ARE AWESOME. Would you agree? Why?

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Name: \_\_\_\_\_

I/C No: \_\_\_\_\_

Address: \_\_\_\_\_

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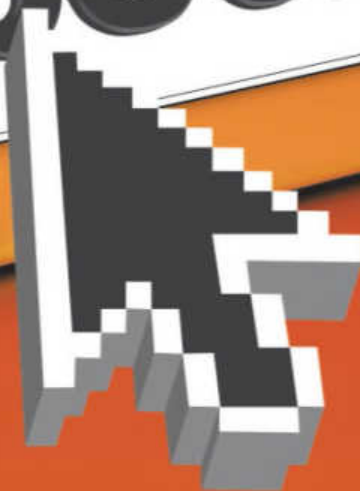
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# Home-based Holiday Activities

*The school holidays are here! And if you are a parent like me, you would have been looking into activities to keep you child occupied. Unless you are going on a holiday for the whole month, chances are your child would be spending time at home most of the time* By GeekMommy



Here are some activities that you could consider and modify to suit your child's age. In our internet age, we can always depend on the WWW for resources. Remember, you don't need to start from scratch and spend a fortune.

## Homemade Season Greetings cards

This would be a great activity for kids who love to doodle or draw. Why not make a personalised year-end season greeting card for family and friends? It will surely beat receiving a commercial one or an e-card. To help your little Picasso, just search online for some greeting card templates that you can print for them to colour or paint. To save them the effort of colouring dozens of greeting cards, just scan and print their masterpiece in colour. If you have a young toddler, just paint their fingers to make patterns out of finger prints. For babies, use their feet to make footprints.

## Origami

You can learn how to make origami from YouTube and instead of buying expensive origami paper, just cut equal squares from magazines. Start with making animal shaped origami and then progress to making more advance ones like boat, planes, roses, etc. You could also make boxes from old greeting cards or magazine covers to keep little trinkets, sweets, cookies or even a small toy for Christmas gifts. While teaching your child creativity, you are also doing your part to up-cycle paper into packaging.



## Camping in the great indoors or outdoors

Camping is a great way to teach your child to enjoy Mother Nature. Setup a camping tent, sleeping bag or air bed in your garden and cook a meal outside using a portable stove. Come night time, setup a projector and screen movies for an outdoor movie experience under the moonlight and stars. Just hang a large white cloth or use the tent as your projection screen. During the day, search around your garden for insects, plants and leaves and search online to identify them. You could also make a scrapbook from dried leaves or use them for artwork.



## Video Blog

A video blog or vblog for short, is a type of blogging where the medium used are videos. Make short videos of your camping adventure as you search your garden for insects and plants or create a movie using your origami animals. Just use a compact digital camera or a Smartphone to record the videos. The ideas are endless and this would allow your child to explore their creativity. This might just spur the next Steven Spielberg. Best part is sharing your vblog with family and friends on YouTube. 📺

*Geek Mommy tries to makes sense of the tech world for the less techie while managing a household, a job and keeping a toddler busy. More of her musings at <http://geekmommy.info/>*



EVENT



# CosMart 2015

*Where cosplayers gather to gear up for cosplay events*

By Nazrin Zain

If you're a cosplayer or a fan of anime, comics, mangas and games in general, chances are you've probably heard of locally-held fan events, such as Comic Fiesta, Animangaki and Visual Arts Expo, amongst others.

Cosplayers, or costume players for short are fans of these genre of entertainment who often attend these events wearing costumes from their favourite anime, manga and games. Sometimes however, getting the materials to make these costumes and props can be quite difficult, which is why the organisers of Comic Fiesta, SAYS Youth Society have come up with CosMart, a sales bazaar where cosplayers can purchase materials and costumes from other fellow cosplayers.

CosMart, short for cosplay market, is an annual event in its third year now. Held at Avenue K this year, the event aims to bring together cosplayers to celebrate their hobby as well as serving as a jumping off point for new cosplayers to join in. The signature cosplay market is a chance for everyone to get items for their costumes from trusted sources within the community itself.

Cosplay is a growing niche in Malaysia and CosMart is dedicated to pushing the standards of cosplay in Malaysia by exposing Malaysians to popular talented cosplayers from around the world. This year, Ely from Taiwan was invited to be the main cosplayer guest of the event. Alongside her are equally talented local cosplayers Jerry, a master at designing props and Angie, herself a popular cosplayer regularly featured in regional events.

"Visitors can also expect an amazing variety of cosplays at CosMart. The event hosted approximately 4,000 pax and 200-300 cosplayers in costume," added event director, Angeline Giam.

"There has been an influx and uptrend of young Malaysians who are very into cosplay and everything and anything anime. Hence, we were very excited to be part of this event. We are delighted to be the official event sponsor and wanted to bring that excitement to the mall with fun activities, promotions, and lucky draws for the fans," said Sue Wang, General Manager of Avenue K.

Besides cosplay workshops held by Ely and



*A variety of items are sold at CosMart, ranging from costumes to props and even dolls*



*Users perusing the goods being sold at the various booths at CosMart*



*A photography competition was also held at CosMart, allowing photographers to show off their skills as well*



*Snacks can also be purchased at one of the lower floors as part of the Japan Fest event at Avenue K*

Jerry, Brian Liam, a cosplay photographer with extensive knowledge in creating the perfect atmosphere for cosplay shoots will also be showing budding photographers on how to compose photos for a variety of scenes.

Not only that, CosMart also held two cosplay competitions to whet the appetite of fans with amazing prizes. Apart from that, there is also the Cosmic Star singing competition for people to unwind, and listen to talented singers sing their favourite anime songs. 📺





CyberFusion 2015 was held at Dewan Tun Canselor in Multimedia University Cyberjaya, with over 600 recorded participants joining in the fun

# CyberFusion 2015

*Where gamers meet to game*

By Nazrin Zain

CyberFusion was first held in 2009 to attempt a world record for the longest LAN party in the world, and succeeded in doing so. The record is still held by the event, and it has since grown to be one of the most prominent cyber-games event in Malaysia, growing in the number of participants every year.

Now into its seventh year, CyberFusion returned bigger and better than before, going back to where it all started, the Dewan Tun Canselor in Multimedia University, Cyberjaya with over 600 people in tow, comprising of gamers who are participating in the LAN party, as well as tournament participants, with games that include the ever-popular DoTA 2, CounterStrike GO, as well as FIFA.

The event was held over three days, starting

from 13th of November to the 15th, with gamers of all ages and sizes, gathering to do nothing but play computer games with one another, meeting friends new and old.

At the LAN party, gamers and PC enthusiasts were also able to show off their cool custom rigs, packed with powerful components that are the envy of many. On top of that, PC casing experts Cooler Master was also there, showing off modded variants of their brand new Cooler Master MasterCase 5 tower PC cases.

Other manufacturer names that were present at the event included ASUS, who generously provided the PC setup for the variety of gaming competitions that were being held at the event, Corsair, who provided the gaming accessories such as mice and keyboard,



A participant of the CyberFusion LAN party proudly showing off his gaming rig



Guys aren't the only gamers at CyberFusion as girl gamers turn up to have some fun too



Lucky winners of Cooler Master's new MasterCase 5 tower PC case



Tournament participants concentrating on their games

as well as DXRacer, prominent makers of gaming chairs.

This year, participants of CyberFusion included not only Malaysians, but also gamers from other countries as well, including Thailand and Indonesia. For three days and two nights, these gamers ate, slept and played computer games, having a good time as they also traded tips on what are the coolest titles right now to be played in single and multiplayer modes. 🇲🇾



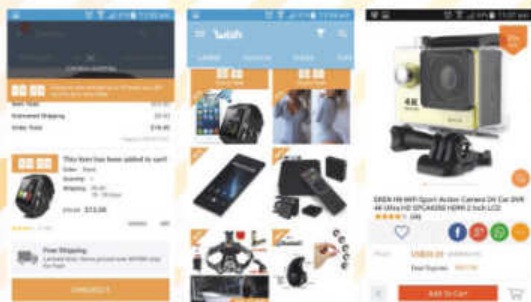
# Apps For The Holiday Season

*It's that time of the year again when festivities are in the air and it's time to start shopping for gifts. Not only that, families are beginning to gather and family dinners are definitely a must for the holiday season. So dive into these apps that will help you ease your way through the holiday season and possibly put a new spin to it like never before*

By Nixon Ng

## PeeqPeeq

Finally there's a way for you to put your junk mail to use with this app. PeeqPeeq collects all those promotional ads that clogs up your e-mail and turns them into a spiffy colourful catalogue. You can bookmark an ad or send it to friends via text message or email. In addition the app is also capable of organising all your ads according to categories such as clothing, food and many more.

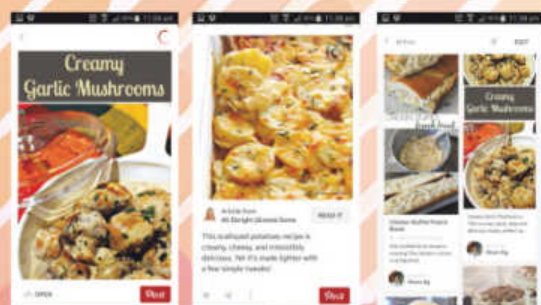
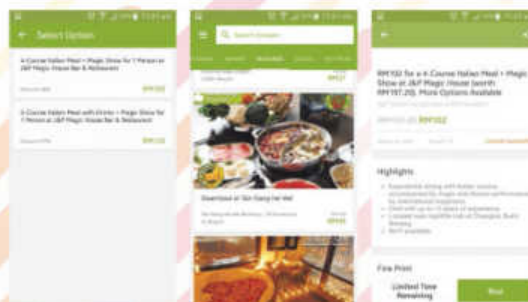


## Wish

Wish allows you to browse a worldwide selection of trending fashion, accessories, and electronics directly in your mobile device. With discounts up to 50-80 percent it's definitely cheaper than what you pay for at shopping malls. Just pick, choose, and checkout and have them send it directly to your doorstep although, because shopping is done worldwide delivery might take longer than expected.

## Groupon

If we're talking shopping there is no doubt that Groupon finds itself on this list when there are so many deals going on. Buy and redeem Groupon deals directly on your mobile device, track your purchased vouchers by location and expiration date and save ink and avoid traumatic paper cuts by never printing another voucher or clipping another coupon. Not to mention, always having the greatest and cheapest deals in the palm of your hand.



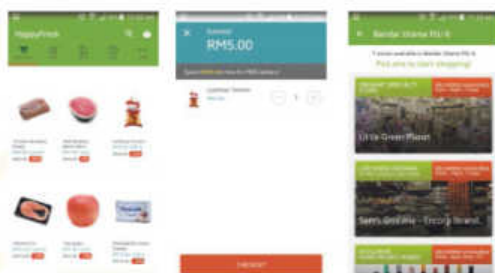
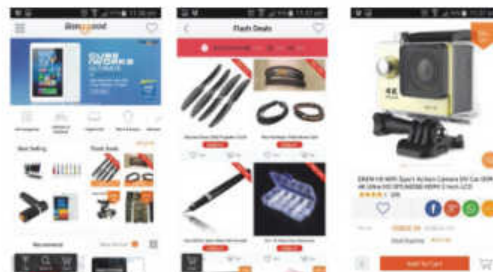
## Pinterest

Something similar to Instagram but uniquely different in what it does, users can share their favourite recipe, clothing, location and many more with this app. What makes this a great holiday app is all the great ideas you can get from looking through the categories. Maybe you want to find a gift, just search for Christmas gifts and scroll through the different gifts people are buying, or if you need a recipe for a Christmas turkey, just search for turkey recipes and you will be bombarded with various recipes on how to make the perfect roasted dinner.



## BangGood

Somewhat similar to eBay, BangGood is an app that lets you shop from its website and has shipping available to Malaysia. If you're looking for a gift for someone or for yourself BangGood has a lot of options especially when it comes to electronics and electronic appliances. Sales are aplenty and its free or low shipping cost is a huge reason to buy from them. Customer service is excellent so if anything goes wrong with your purchase feel free to lodge a report or complain and they will reply quickly.

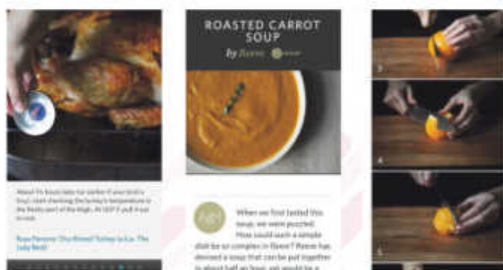


## Happy Fresh

A not so new app in Malaysia, which provides grocery shopping through a mobile device and then gets it delivered to your doorstep in no time. Perfect for the housewife who just doesn't have the time to leave the house to go shopping while preparing for the big family dinner. Just pick the groceries that you want through the app and wait for the rider to bring your groceries to you, and not to mention, there is a feature which allows you to look through recipes and then add the ingredients straight into your shopping basket for quicker purchases.

## Airbnb

Is making travel plans for the holiday giving you a headache? Well you can now make travel plans on your mobile with Airbnb, opening the door to the world's most interesting places to stay and is the simplest way to earn money from your extra space. Listing over 450,000 places in more than 34,000 cities, Airbnb connects you with the experience that's right for you. Book one-of-a-kind accommodations and find rooms for rent directly from your mobile device anywhere in the world.

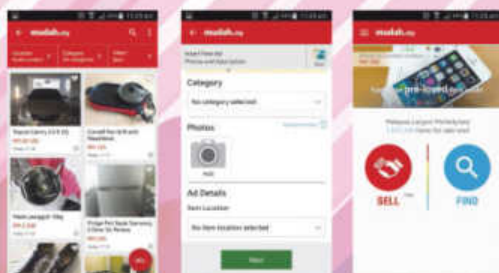
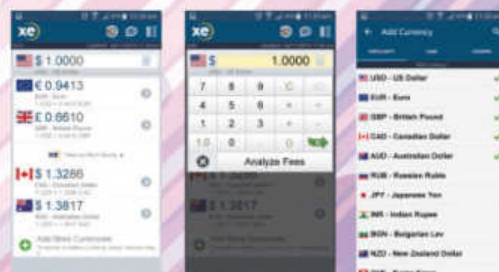


## Food52

Find that you're running out of ideas on how to prepare that big family dinner when the holidays arrive? Food52 is an app that's brimming with fun recipes, video tutorials and step-by-step photos offering tips and tricks on everything ranging from laying out a table to even recovering from a disaster. An app that any party planner would love to have or just to add a new spin on your parties, whatever it is Food52 is an app you wouldn't mind taking space.

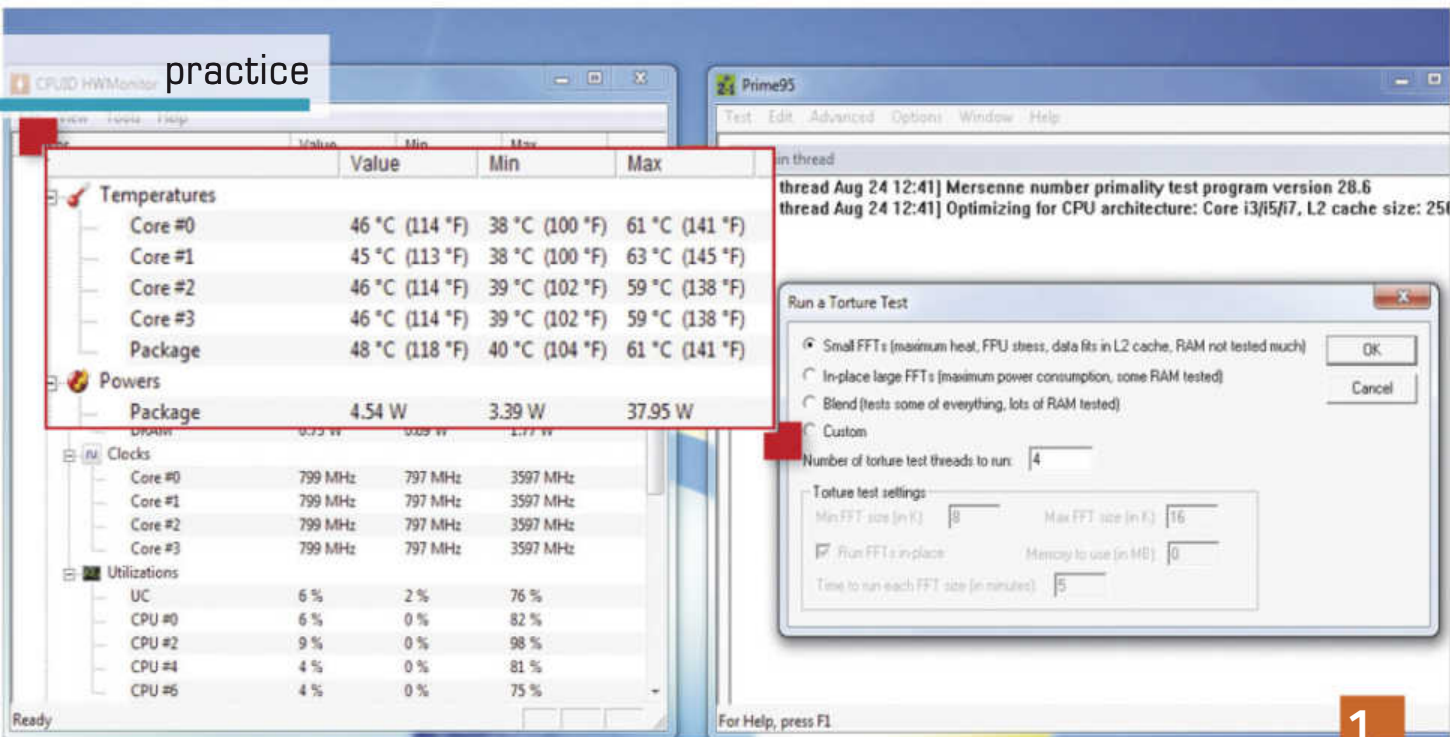
## XE Currency Converter

When it comes to the holidays, countries all over the world start having sales and it's hard to resist the urge to shop from overseas when such good deals appear. It's hard to keep track of all the different currencies so why not have all of them under one application. XE Currency Converter allows you to add a whole list of currencies to your interface and then display real-time currency rates for each currency which you've added. Calculating expenses is now easier and it'll give you a good approximation on how much your budget should be.



## Mudah.my App

Mudah.my can be considered one of the many eBay's of Malaysia, with over thousands of users buying, selling and trading their used or brand new goods on its site. It's another great app you can download if you would like to find gifts for family and friends. Browse millions of products that are sold by fellow Malaysians and always find the best deals in a single click. Or if you feel like in a haggling mood, you can contact the seller directly and negotiate to your hearts content.



# Checking Your Hardware

*With these easy steps, you can quickly check and identify problems early and avoid bad things from happening to your computer* By Markus Hermannsdorfer

As the components in your PC have only a limited lifespan, you should constantly check the most important components on a regular basis. Do this every six months or so to detect any errors beforehand. It will make it easier to replace certain components before they ultimately fail and to avoid data loss.

## Steps

### 1 CPU: Stress-testing the CPU

Install HWMonitor and Prime95. Start Prime95 and click on "Just Stress Testing". Select the option "Small FFTs" in the "Run a Torture Test" dialog and start the stress test by clicking on OK. It will take about twenty minutes. Meanwhile, observe the temperatures of the processor cores. If the temperature goes above 80 degrees or if you get a warning message, then you will need to check on your processor.

### 2 Monitoring the Fan

Install and start SpeedFan. Go to the "Charts" tab and select the option "fan speeds" in the "Analyse" list. Set the check mark for all the displayed fans and observe the values for a while. If a fan is showing a lot of fluctuations then you should clean or replace it.

### 3 Graphics: Check Your GPU

Install and start FurMark. Click on "GPU stress test". A new window will open. Discover large artefacts in the displayed test window that move rapidly across the screen, indicating that there are defects in the graphics processor. Square boxes display errors in the memory of the graphics card. During the tests, the software will also display the temperature of the graphics card. If the temperature goes above 80 degrees, immediately stop the stress test. Check the heatsink of the graphics card by cleaning it or by replacing it.

### 4 RAM: Finding Defective Modules

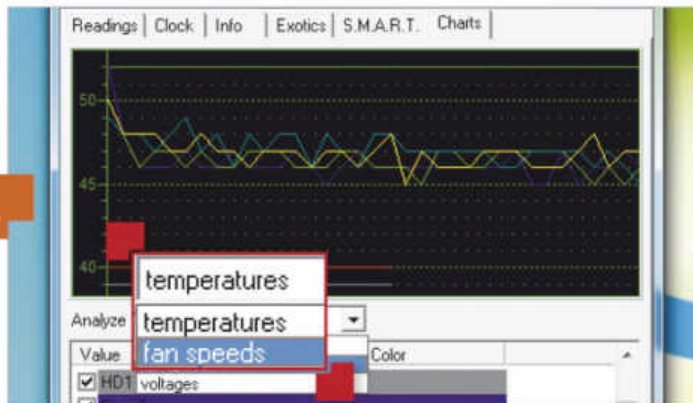
Burn the ISO file from MemTest86 on a CD or DVD and run it on your PC. Here, you have to first set the appropriate booting medium in the BIOS. MemTest86 will start automatically. If the tool finds errors, you should remove all RAM modules except for one and run the test again. Individually test all the RAM memory banks one after the other. In this manner, you will be able to identify the defective module. Replace the defective module and replace it with a new one.

### 5 Power Adapters: Observe Voltage Fluctuations

Install and start HWMonitor (on DVD). Open the sub-directory "Voltages" and monitor the values for "3.3 V", "5 V" and "12 V". They



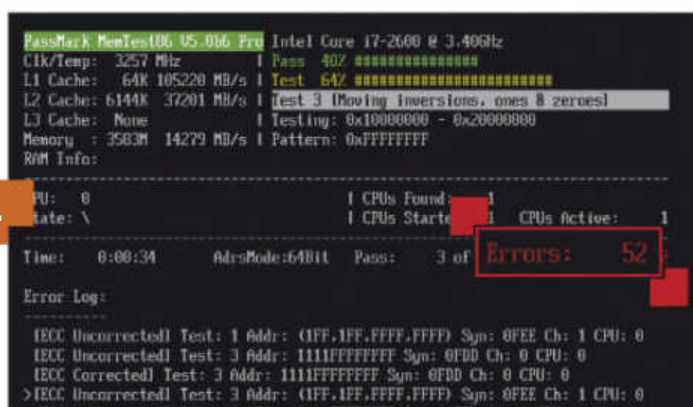
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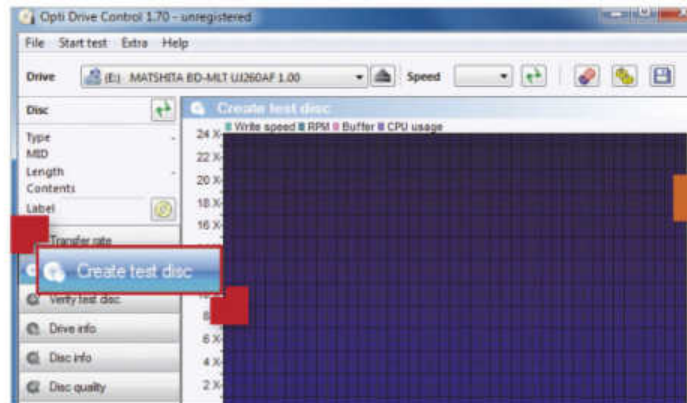
5

| Sensor              | Value          | Min            | Max            |
|---------------------|----------------|----------------|----------------|
| <b>Voltages</b>     |                |                |                |
| CPU VCORE           | 0.912 V        | 0.848 V        | 1.248 V        |
| VIN1                | 1.584 V        | 1.568 V        | 1.584 V        |
| +3.3V               | 3.360 V        | 3.360 V        | 3.376 V        |
| +5V                 | 4.973 V        | 4.946 V        | 4.973 V        |
| +12V                | 2.112 V        | 0.704 V        | 7.872 V        |
| +5V VCC             | -12.416 V      | -12.608 V      | -12.416 V      |
| VBAT                | 3.602 V        | 3.602 V        | 3.602 V        |
| CPU                 | 3.280 V        | 3.280 V        | 3.280 V        |
| <b>Temperatures</b> |                |                |                |
| TMPIN0              | 41 °C (105 °F) | 41 °C (105 °F) | 41 °C (105 °F) |

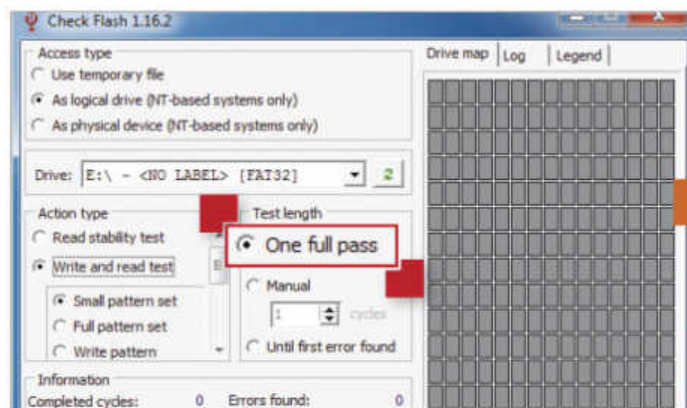
6

| ID                            | Current | Worst | Threshold | Data     | Status |
|-------------------------------|---------|-------|-----------|----------|--------|
| (01) Raw Read Error Rate      | 117     | 99    | 6         | 156093   | Ok     |
| (03) Spin Up Time             | 97      | 97    | 0         | 0        | Ok     |
| (04) Start/Stop Count         | 100     | 100   | 20        | 401      | Ok     |
| (05) Reallocated Sector Count | 100     | 100   | 36        | 0        | Ok     |
| (07) Seek Error Rate          | 77      | 60    | 30        | 53032202 | Ok     |
| (09) Power On Hours Count     | 99      | 99    | 0         | 1106     | Ok     |
| (0A) Spin Retry Count         | 100     | 100   | 97        | 0        | Ok     |
| (0C) Power Cycle Count        | 100     | 100   | 20        | 510      | Ok     |
| (B8) (unknown attribute)      | 100     | 100   | 99        | 0        | Ok     |
| (BB) (unknown attribute)      | 100     | 100   | 0         | 0        | Ok     |
| (BC) (unknown attribute)      | 100     | 100   | 0         | 0        | Ok     |
| (BD) (unknown attribute)      | 100     | 100   | 0         | 0        | Ok     |

7



8



depict the power voltage of the power adaptor. If the fluctuations are more than 0.5 V in the columns "Min" and "Max", replace the power adaptor or get it repaired from the device manufacturer.

## 6 Hard Drives: Track Writing Errors

Install and start HD Tune. You can check the disk for errors via the "Error Scan" option. "Health" meanwhile will show the current health status of the hard disk. A thermometer will show the current temperature of the hard disk. Ideally, it should be between 25 and 40 degrees Celcius.

## 7 Optical Drives: Burn Tests

Install Opti Drive Control. Place a blank disk in the burner, start the tool and select "Create test disc". Opti Drive Control supports CD, DVD and Blu-ray media. Remove the check mark for "Test write" and click on "Start". After the burning process, you can test the burner thoroughly via "Verify test disc". If there are error messages, then a firmware update is often the solution.

## 8 Flash Storage: Check For Errors

Before you run the test, you have to create a backup of the Flash memory as all data will be deleted during the test. Download Check Flash, unzip the ZIP file and start the tool. Under »Drive«, select your SSD or a USB stick and activate the setting "As logical drive (NT-based systems only)" under "Access type". Under "Action type", select "Write and read test" and "Small pattern set". Select "One full pass" under "Test length". Click on "Start" and confirm the warning message with "Yes". After the test, search for error messages under "Log". If there are several error messages, you should not store any important data on this Flash memory.



# Manipulating Channels To Improve Studio Photos

*You can control depths, lights and mid-tones in studio photos and make them much more dramatic using newly established channels* By Markus Hermannsdorfer

Many Photoshop users wish for finer setting options for lights, colour depths and midtones. Using special selection areas that are present in separate channels, you will be able to get a three-stage light and shadow slider which mainly shows its strengths especially with studio photos. In steps 1 to 5, we will explain how to set up the channels and how Photoshop selects the image areas by itself. Step 6 shows how you can call the channels via an easy dialogue box and in the remaining steps you will learn how a channel becomes a luminance screen, giving you all the lighting and colour options that you need.

## Steps

### 1 Set Up Alpha Channels For Lights

Open an image in Photoshop. Go to the Layers window and to the tab "Channels" or alternatively select "Windows > Channels" in the menu. Keep the [Ctrl] key pressed and click on the "RGB" channel. Photoshop will now select all the bright image areas. Click on the icon "Save selection as Channel". Double click on the new channel "Alpha 1" and name it as "Lights".

### 2 Add More Light Channels

Click on the new channel "Lights" and while doing so, keep the keys [Shift] + [Ctrl] + [Alt] pressed. If you are working on an Apple Mac, press the [cmd] key instead of [Ctrl]. Photoshop will now differentiate between bright and very bright in the selection. Click again on "Save selection as Channel" and name the channel as "Bright lights". Repeat this step once again with the channel "Bright lights" and name the new channel "Brightest lights".

### 3 Set Up Channels For Shadows

Keep the [Ctrl] key pressed and click on the channel "Lights". Go to the menu "Select > Invert selection". You can then select the dark areas instead of the bright ones. Save the selection as channel and name it as "Depth".

### 4 Add Two Shadow Channels

Similar to the "Bright lights" and "Brightest lights" channels, press [Shift] + [Ctrl] + [Alt] and click on channel "Depths". Name the first new channel "Darker depths" and the second one "Darkest Depths".



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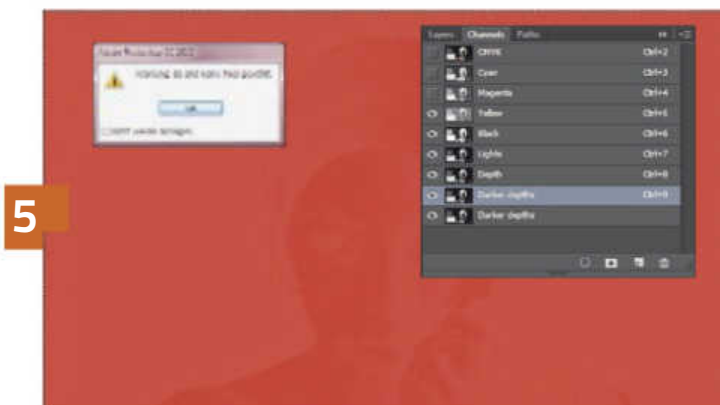
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## 5 Set Up Channel For Mid Tones

For all the channels that you have created till now, click on the box in front of them so that they are displayed as visible. Click off the Eye icon for »RGB« and the individual colour channels, if necessary. Now press [Ctrl] + [A] to select the entire image. After this, go to the "Select > Invert selection" menu. At this point, Photoshop will issue an error message stating that too few pixels have been selected. Confirm with OK. Then click on "Create new channel" and name it as "Midtones". In most cases, this channel may show a black or a white area, depending on the background. This depends on the fact that there hardly anything to control after all the lights and shadows have been removed.

## 6 Select Individual Channels

If you wish to deselect your selection, press [Ctrl] + [D]. Then click on "RGB" and note that all the three colour channels under it are activated. From here, you may go to the tab "Layers" and work on the image as usual. If you need the selection areas stored in the newly created channels, go to the menu "Select > Load selection" and search for the channel with the desired selection, via a list.



5

## 7 Brighten or Darken Specific Areas

As an example, go to the "Lights" channel. Go to "Layer > New setting layer > Gradation curves" and confirm with OK. The selection will now be converted to a luminance mask. Change the gradation curve and it will take effect only on the bright areas. In this manner, you can create a curve to set the depth or the darkest depth. Instead of the gradation curves, you can also use all other setting layers for control or change the light through colour filters. The possibilities are endless.

## 8 Implementing Soft Light Through Filter

Load the luminance mask "Brightest lights". Then press [Shift] + [Ctrl] + [C] and then [Ctrl] + [V]. You will have thus copied the mask to a new layer. You can now make the light softer using the filter "Gaussian Blur". If you like the result, merge the individual layers and save the finished image.



6



# Tips & Tricks

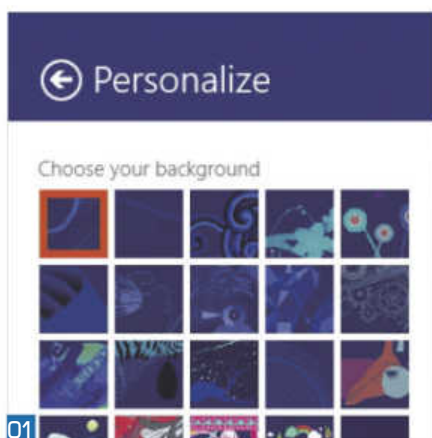
DECEMBER 2015

## WINDOWS

### 01 WINDOWS 8.1 Individually change the colours of the control and the Start menu

In Windows 8.1, there are many options to change the colours used for the background and various other menus. The Start menu itself can be edited to suit your individuality. If you wish to do so, then open the Charms bar using [Windows] + [C] and look for "Colours". In the results in "Settings", click on the result "Change background and colours of the Start page".

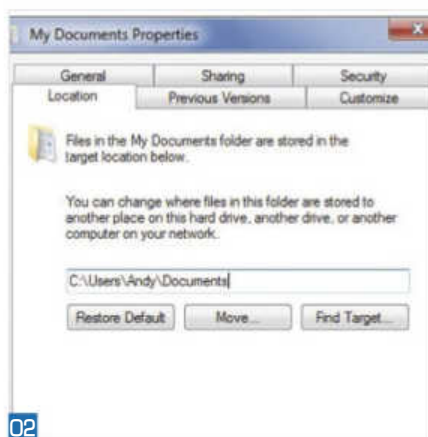
On the right screen edge, you will now see a menu where you can change the background sample, the background colour and accent colour. In case of colours, you can click on the basic colour in the palette below and then choose between various tones of colours. Your customisations are displayed in the background of the Start menu. Once you



01 Change the preset colours and backgrounds in the settings of Windows 8.1

are satisfied with the result, simply click on the free space on the screen and the colour will be saved.

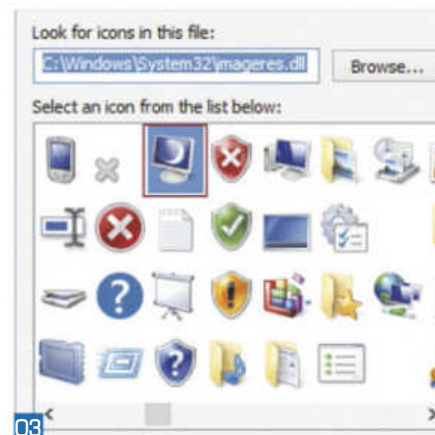
### 02 WINDOWS 7 Move the folder for Downloads to another location



02 In the folder settings, you can specify a random path for the Download directory

All your downloaded files land automatically in the Download folder of Windows 7. This folder can be moved to any random location. To do this, open the Download folder on your computer. This folder, by default, will be in the path "C:\Users\Your\_username\Downloads". The next step is to right-click on a free space and then select the option "Properties". Click on "Move" in the "Path" tab and select the new path of your Download folder. When you're done, save these changes with "OK".

### 03 WINDOWS 8.1 Add a link to the button »Show Desktop«



03 You will find the icon for Show Desktop in the 'System32' folder

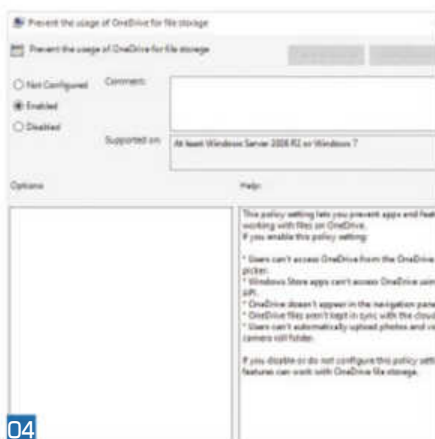
This button that is used by users of older Windows versions to minimise all windows at the same time, is missing in Windows 8.1. But you can add it yourself with a few tricks. Right-click on a random place on the desktop. In the context menu, select "New > Shortcut". In the next window type "explorer shell::{3080F90D-D7AD-11D9-BD98-0000947B0257}" as the location and click on "Next". You will shortcut. Enter "Show Desktop" here and confirm with "Finish".

Now you will see a new shortcut on the desktop. Right-click on the shortcut and select "Properties" and then "Other icon". You can find the suitable icon under the path "C:\Windows\System32\imageres.dll". Confirm the change with OK.

Now move the shortcut to the Taskbar. To do this, right-click again on the shortcut. In the context menu, select "Attach to Taskbar". You can now start using it immediately on the Taskbar.

### 04 WINDOWS 10 Disable OneDrive's autostart with Windows

If you are not using OneDrive under Windows 10, you can disable its automatic startup. Right-click in the Taskbar on the OneDrive icon and select "Properties". Go to "Settings" and disable the option "Automatically start OneDrive while logging on to Windows". Save the setting by clicking on OK. This will work only with an active Internet connection and if you already have



04

Disable the OneDrive service via its properties in Windows 10

installed OneDrive.

The other alternative is to open the path 'C:\User\Username\AppData\Local\Microsoft\OneDrive' and rename the file »OneDrive.exe" to "Drive.exe". You will have to restart your computer after doing this.

## 05

### WINDOWS

#### Two methods to set your microphone louder

There are two simple options to control the volume of the microphone, in most computers. Open the Control Panel and select the "Sound" option under the category "Hardware and Sound". Go to the tab "Record" above and select the microphone. Then click on the button "Properties". Go to the tab "Level" and move the slider to the right. Close both the windows via the OK button to save your settings.

The program Realtek Audio Manager is pre-installed on many computers. You can also configure the microphone using the software. If the program is installed on your computer, then in most cases, you will find it in the Taskbar. You can identify it with the light-brown microphone icon. In Realtek Audio Manager, go to the tab "Microphone" and drag the volume slider to the right to set the microphone louder. If your microphone has been connected to an amplifier then you can mostly increase the volume via a slider here.

## 06

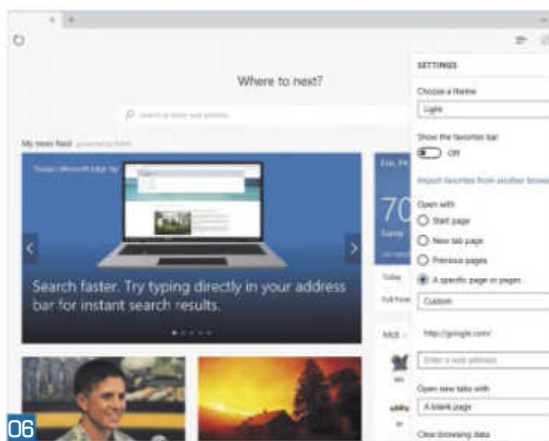
### WINDOWS 10

#### Use Google instead of Bing in the Edge browser

Windows 10 comes with a new browser called Edge that functions differently compared to Internet Explorer. By default, the new browser from Microsoft sets Bing as the search engine. But you can change this to Google with the correct settings. Start the Edge browser and right-click on the button with the three dots on the top right. Select "Settings" and scroll a bit down. Now click on "Show advanced settings" and search for the option "Search in address bar with". Open this line and select the search engine "Google". The changes will be incorporated automatically.

Note This function is not available under certain conditions in some test versions of Windows.

If you wish to also search via Google at the Start then you can set up this service as a Home Page. Go to the browser settings and select the option "Defined Page(s)" under "Open with". Select "User-defined" in the list under the same and enter the URL <https://www.google.com> in the line under it. Now click on the blue diskette icon next to the



06

You can specify the start page of the browser in the settings

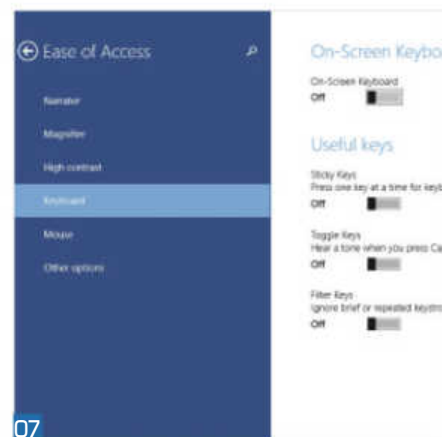
option so that Edge will save this setting. You will automatically be taken to the Google page when you start the browser the next time.

## 07

### WINDOWS 7

#### Disable the automatically starting screen keyboard again

If your computer does not detect the keyboard in Windows 7, the "screen



07

The automatic start of the screen keyboard can be disabled only in the Administrator mode

keyboard" can be enabled. However, it will automatically start from now on, every time Windows starts. In order to get rid of this feature, open the Start menu and type the command "Operation". Click on the search result "Centre for easy operation". You must now select "Change Administrator settings" on the left side and then "Apply all settings to the login dialog".

Now go to the settings for the screen keyboard: "Operate computer without mouse or keyboard". Here, you must now remove the check mark for "Use screen keyboard" in order to disable the keyboard.

## 08

### WINDOWS 10

#### Enlarge or reduce the Start menu with a few tricks

Windows 10 finally has a sensible Start menu again, whose size can be changed. Take the mouse pointer to the upper edge of the Start menu and you will be able to enlarge or reduce the Start menu like any



08

The size of the Start menu can be changed like a normal window in Windows 10

other window. Pull down the Start menu and it will become a bit wider under certain conditions as the apps automatically start looking for space on the right side. Pull it upwards and it will become taller but also slimmer. The apps are more compressed. If you wish to make the Start menu narrower, then right-click on the app that is not used often. The program will be hidden by clicking on the command "Unpin from Start". Remove all the apps and you will get a Start menu like that of the old Windows versions you know. Obviously, you can also add more apps to the Start menu. These apps can be found via the search bar. Right-click on the app and select the option "Pin to Start". The Start menu will then become wider.

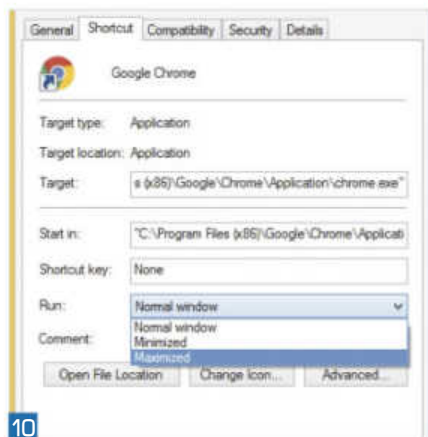
## 09 WINDOWS 7 Change the letter of a drive only in three steps

Drive letters for hard disk are assigned automatically by Windows but you can change them via the Control Panel. Open the Start menu and click on the "Control Panel". Type "Management" in the search bar on the top right. Now select the first option "Management". Double click on "Computer management" here.

Select "Disk management" in the window. If the tab "Data storage" in the list on the left, is not yet opened due to which, the option »Disk Management« remains hidden then double click on the "Data storage" category. Now click on "Disk management". An overview with the link hard disk will be displayed on the right. Here, select the respective drive letter which you wish to change. Right-click on the desired letter and select "Change drive letter and paths". You can now define the desired drive letter for the respective partition in a new window. Click on "Change". A new sub-window with the title "Change drive letter or path" will pop up. Here, select the desired letter in the drop down menu behind "Allocate following drives". Finally, confirm your selection with OK. The drive letter of your partition is now changed.

## 10 WINDOWS Always start linked applications in full screen mode

Normally, Windows starts applications in the mode in which you have closed them. In case



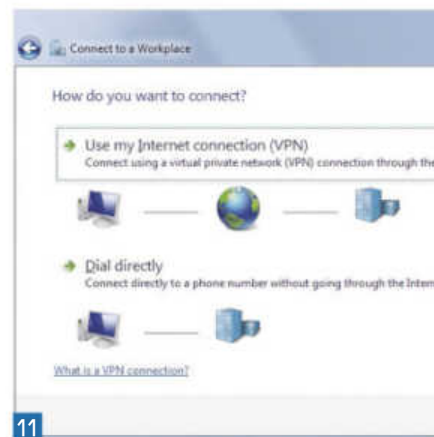
10 Change the Start mode in the link to start programs permanently in full screen mode

of some programs, you can always activate the window or full screen mode if a link has been created earlier for the program. Open Windows Explorer and right-click on the program which should be started in full screen mode. In the context menu, select the option "Properties". In the next dialog, select the tab "Link". After that, click on the option "Maximised" next to "Run". Finally confirm your selection by clicking on OK. Note If you linked the corresponding program with the desktop, then just a right-click on the icon will suffice

## 11 WINDOWS 8.1 Setting up a bug-proof VPN connection on the PC

If you wish to access your company network from home then a secure Virtual Private Network is required. To install such a connection, right-click on the network icon in the Taskbar and then select "Open network and release centre". Subsequently, select "Set up a new connection or a new network". You must now click the lowermost option "Establish connection with the workstation".

If connections are already set up, then select "No, create a new connection". You must then click the option "Use Internet connection (VPN)" in the list. In the next window, enter the IP address of the VPN server. You can also define a



11 Via the network and release centre, start an Assistant which will help in setting up the connectivity

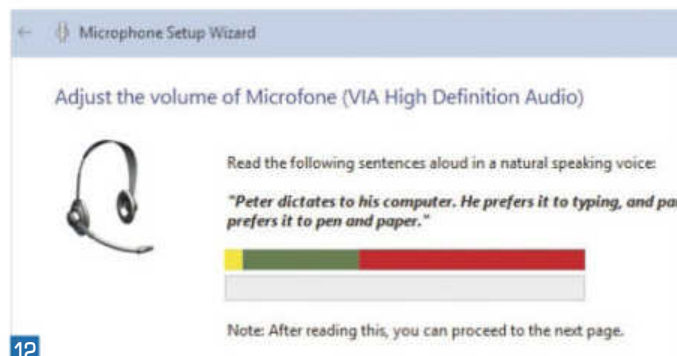
name for the connection here. Finally, click on "Create" in order to save the configuration of the VPN connection.

There are two steps necessary to activate the VPN connection created: Click on the network icon in the Taskbar and select your VPN connection under "Connections". You need to enter your access information for the first connection. These settings can be stored permanently.

## 12 WINDOWS 8.1 Set up and use the integrated language detection

With Cortana, Windows 10 provides an assistant who can perform many tasks for you using voice commands. A simpler variant of this assistant can also be found in Windows 7 and 8.

Open the Start menu in Windows 7 or the Charms bar in Windows 8 and type "Language" in the search line. You can then set up language detection with the help of an assistant. Windows will initially help you in setting up the microphone and then you will have to respond to a few questions for



12 With the help of tests, the language detection tries to optimally identify your voice



the desired behaviour of the program. When everything is set, you will see a small window with a microphone icon. You will see a spike in the volume display when you speak.

The options of language detection go beyond simple dictation. You can also give special commands like Tabulator or scrolling, control the selection, call the menu of the current application, make double-clicks, start programs or switch from one program to another.

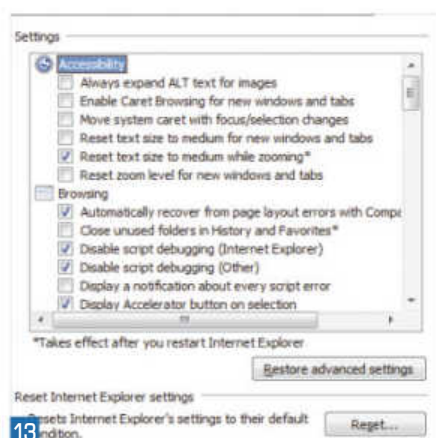
If the language detection fails, then speak the command "Spell". You can switch to a mode in which every single character is spelled out.

## 13 WINDOWS

### Eliminate problems with the file "mshtml.dll" in Internet Explorer

If some parts of the Internet Explorer are not compatible with those of Windows, there may be errors with respect to the file »mshtml.dll«. These problems can be quickly and easily eliminated. First, open Internet Explorer and then go to "Internet options". Under "Advanced" tab, all the browser settings are reset here. The error is often rectified with this step. If not then ensure that you are using the latest version of Internet Explorer.

If the error still occurs, check whether all the latest Windows updates are installed. It may happen that older files in Windows are not compatible with the new Internet Explorer and error messages are issued for this reason. When you have successfully installed all updates, the mshtml.dll in the Internet Explorer error should be deleted. Irrespective of the same, your system will now be better protected against attacks.

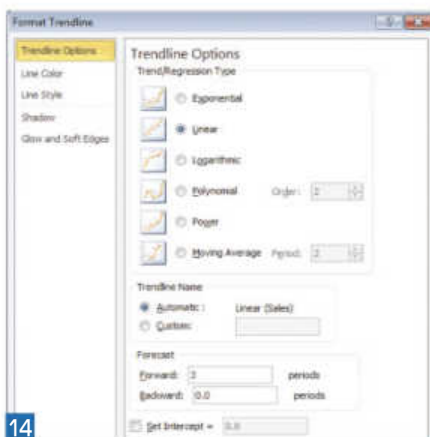


You can reset the Internet Explorer to factory settings using just one button

## OFFICE

## 14 WORD

### Inserting semi-transparent images in a document



In the area on the right, set the type and look of the line in the diagram

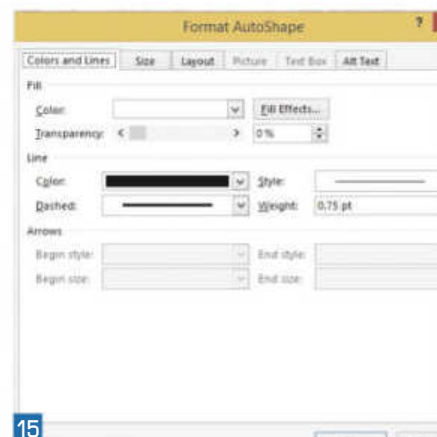
In Word, it is not readily possible to make images transparent. The easiest way is to create a rectangle and to insert the image as a filling. Click on the "Insert" tab and select the "Rectangle" under "Shapes". Insert the rectangle now at the position where you wish to have the image. Right-click on the rectangle and then on the command "Format shape" to adjust the image. In the "Fill" menu, select "Image or text fill" and insert the desired image. You can now change the transparency of the image using the slider.

**Note** This tip has been created with Word 2013. The menu structure may differ in other versions.

## 15 OUTLOOK

### Displaying the current calendar week from the mail program

If you wish to have the calendar week displayed in the monthly view of Outlook, you must activate the option in the settings. In Outlook 2003 and 2007, click on the menu option "Extras" on the top left and select "Options". Under the "Settings" tab, you will find the button "Calendar options" next to the title "Calendar". Here, set the check mark for the option "Display week numbers in the monthly view and date navigator". Close both the windows by clicking



Select the opacity of the image in the document using a slider

on OK in each case.

In the latest versions 2010 and 2013, click on the option "File" in the menu bar. Then select "Options" at the bottom left. Here, click on the option "Calendar" in the menu on the left and scroll down a bit till you come to the "Display options". Here, select the check mark for the option "Display week numbers in the monthly view and date navigator". Then click on OK.

## HARDWARE

## 16 KINDLE

### What to do when your E-Book reader hangs

A few simple tricks will do the job if your Kindle refuses to turn on: Unplug your Kindle from the computer. Press the On/Off button till the warning light glows green for about 2 seconds. Keep this button pressed after for about 5 seconds. Wait till the screen contents appear and then release the button. Now press the On/Off button once more to switch on Kindle again.

If this does not work, try to reset the



You can get your E-Book reader working with a hardware reset, if it hangs

device. For this, keep the On/Off button pressed for about 20 seconds. Ensure that the device is charged before you restart it.

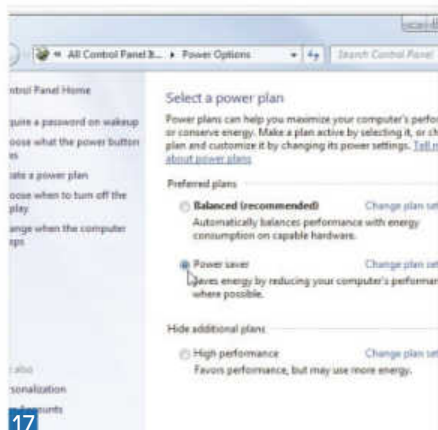
A software update may be able to fix the error. You should manually install the update so that the device does not hang during the installation. To do this, first load the latest firmware on your PC. Connect the Kindle with your computer and switch on the device. Then drag the downloaded firmware to the Kindle directory. When the transfer is complete, unplug the Kindle from the PC. Now press the menu button on your Kindle and open the "Settings". Here, you have to press the menu button again to subsequently select the "Software update". Run the update by pressing OK.

### 17 **SAVE POWER** What is the difference between saving power and hibernation?

Windows offers users a power saving mode and a hibernation mode.

But it does not tell the user what is the exact difference between the two shut-down modes.

When you send your computer into the power saving mode, it does not shut down completely. The RAM remains active and must be continuously supplied with power as long as the PC is in the "Power-Save" mode. However, the power consumption is less such that you can leave a laptop in the power-save mode for a few days without any significant impact on the batteries. You can also wake up your computer very quickly as there is no need to read any data from the hard disk at the start. However, caution is advised: If there is a power failure or if the batteries are discharged, then while the



**17** The system offers several power saving modes but does not elaborate on them

computer is in the power-save mode, the data of the last session may be lost.

On the contrary, the contents of the RAM are written on the hard disk in hibernation mode. The RAM can also be shut down, which means you can disconnect the computer from the power supply. The contents of the RAM are read again upon restarting, and you can resume working from where you had left off. This process needs some more time as compared to the power-save mode, but it is generally much faster than the standard start-up.

### 18 **PRINTER** Having problems with offline printers? These tips should help



**18** Wrong settings lead to failure of USB and WLAN printers

If a printer is continuously displayed as Offline on the PC, there are several reasons why it's happening. If the device is connected to a USB port, check whether the printer is switched on and correctly connected and try another USB port for testing. If the printer switches to the power-save mode, then it will be shown as offline. If this status remains even after switching to online mode, then do the following to rectify the error: Restart the printer and connect it again to the computer. Go to the Control Panel of Windows and click on "Show devices and printers". Right-click on your printer and click on "Printer properties" in the menu. You should set the check mark for "Allow" under the "Security" tab. If none of the above helps, re-install the printer driver.

In case of network printers, check whether the router is switched on and whether the printer is on the same network as the computer. To connect your printer to the network, look for your wireless network

(alternatively some printers are accessed by their IP address) and enter the password of the WLAN. The manual of the printer will have detailed information about this process.

Some printers are shown as offline when the ink level of the cartridges falls below a specific value. Such errors are

### 19 **LOUDSPEAKER** Remove noise interference during playback of music and movies

Interference from the loudspeakers can really spoil the joy of music or a movie. In case of



**19** Wrong settings lead to failure of USB and WLAN printers

external speakers, the interference can be caused by wrong loudspeaker settings. If the boxes are set to full volume but the input signal is very low. Turn down the volume control on the loudspeaker to zero. Set the loudspeaker of the playback device to around 75 percent. Play the music and then slowly turn up the volume of the loudspeakers till you achieve the right setting.

Cell phones placed next to loudspeakers are also a cause of loud interferences. Keep such devices away from the speakers. Also check whether all cables are correctly connected, mainly in the case of cheap terminals where a cable or the contact is damaged due to soldering. This may also lead to crackling and other similar unpleasant sounds. If possible, check using another cable or test the cable on another loudspeaker as it may be broken.

### 20 **PLAYSTATION 4** Console beeps three times before shutting down – What does this mean?

The device will normally beep twice when it is shut down via the Power button. But

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20

*You have not exited a game correctly if the console beeps thrice*

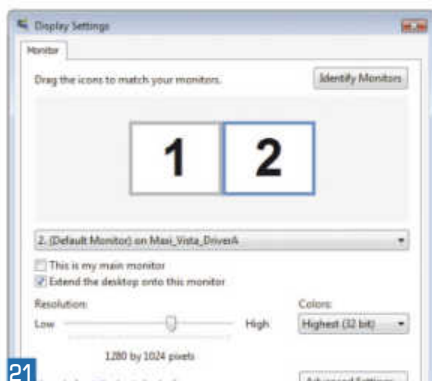
if the PS4 beeps thrice, it means that you have not closed all applications. Some of them are still running in the background. In this case, the connection to the PSN is often to blame here. Close an application where you keep the PS button pressed while the corresponding application is running. Select 'Close application'. The three beeps may also occur if a download process is running and if you are shutting down the PS4. This is a warning sound and not be misunderstood as an error alert.

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#### MONITOR

**Two methods to use a laptop as a second monitor**

You need to make use of some tricks if you want to use your notebook as a second monitor for the PC. Connecting the two via HDMI cable, unfortunately, will not work i.e. a direct transfer of the screen is not possible. However, you can transfer the screen to the laptop via a network connection with the help of the practical and free tool spacedesk. For this, install only the software on both devices. Use the program MaxiVista, which costs around 50 Euros, for a better transfer quality.



21

*MaxiVista transfers the screen via network connection*

22

#### RASPBERRY PI

**Set up a WLAN connection on the mini computer**



22

*You can set up a wireless connection on the Raspberry Pi via the Linux command netctl*

Using a commercially available WLAN stick, you can connect your Raspberry to the network. Connect the stick to a USB port on the Raspberry Pi and install the netctl package. This works under APT via the command "sudo apt-get install netctl" or via Pacman with the help of the command "pacman -S netctl" in Terminal Emulator under Arch Linux. Subsequently, enter the "wifi-menu" in the Terminal Emulator (without quotes). Select your WLAN network and enter the password if necessary. The profile is stored in the folder path "etc/netctl/" and can be edited later if required. Check the connection status with the help of the command "netctl status <Profile name>"

#### PHOTOGRAPHY

23

#### GIMP

**Quickly and precisely cut subjects using the intelligent scissors**

You can cut out objects in just a few steps using the intelligent scissors or magnetic selections in Gimp. The intelligent scissors can be activated via "Tools > Selection tools > Intelligent Scissors" or the scissor icon in the tool window. Click on the margin of the object to be cut. A white dot will appear. Repeat this step - again at the side of the object. The intelligent scissor will then generate a link between the two points that run along the margin of the object. While doing so, Gimp analyses the colour differences in the image and thus determines the connection lines. Here, go along the entire margin of the object. But note that you do not set the points too far away from each other which will then often result in Gimp working inaccurately. You can rectify the selection by dragging the individual points.



23

*You can quickly cut out objects after selecting them with the tool*

Finally, click on the first point again and the entire object will be selected. You can now cut, copy or apply filters to the object.

24

#### GOPRO

**Charging the batteries of the camera correctly and faster**

Does your GoPro need new batteries? We have a few tips for optimal charging. First take off the cover on the left side of the GoPro to reach the connections. Now insert the USB cable provided into the corresponding port and connect the other end to your computer or a USB power adaptor for the socket. The red LED on the GoPro will glow continuously till the batteries are fully charged. Charging via a power adaptor will take around two hours. If you use a USB port on the computer, you will need double the time. In addition to the red light, if the USB icon is displayed, then the camera is in USB mode and is not being charged effectively as it needs additional power for charging. In this case, switch off the device and connect the cable again in the power-off mode. 🇩🇪



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*Shutting off the USB mode reduces the charging time to half*





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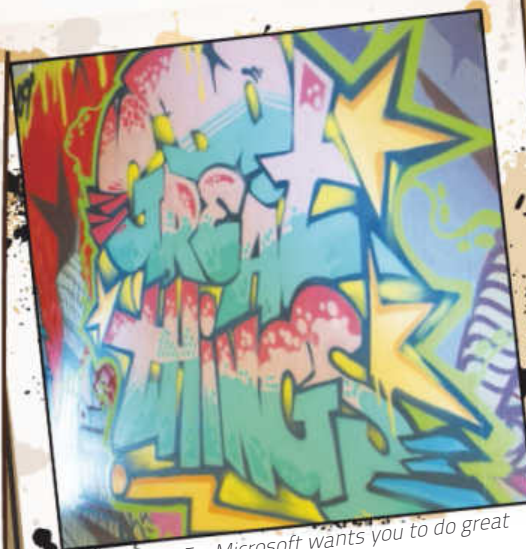
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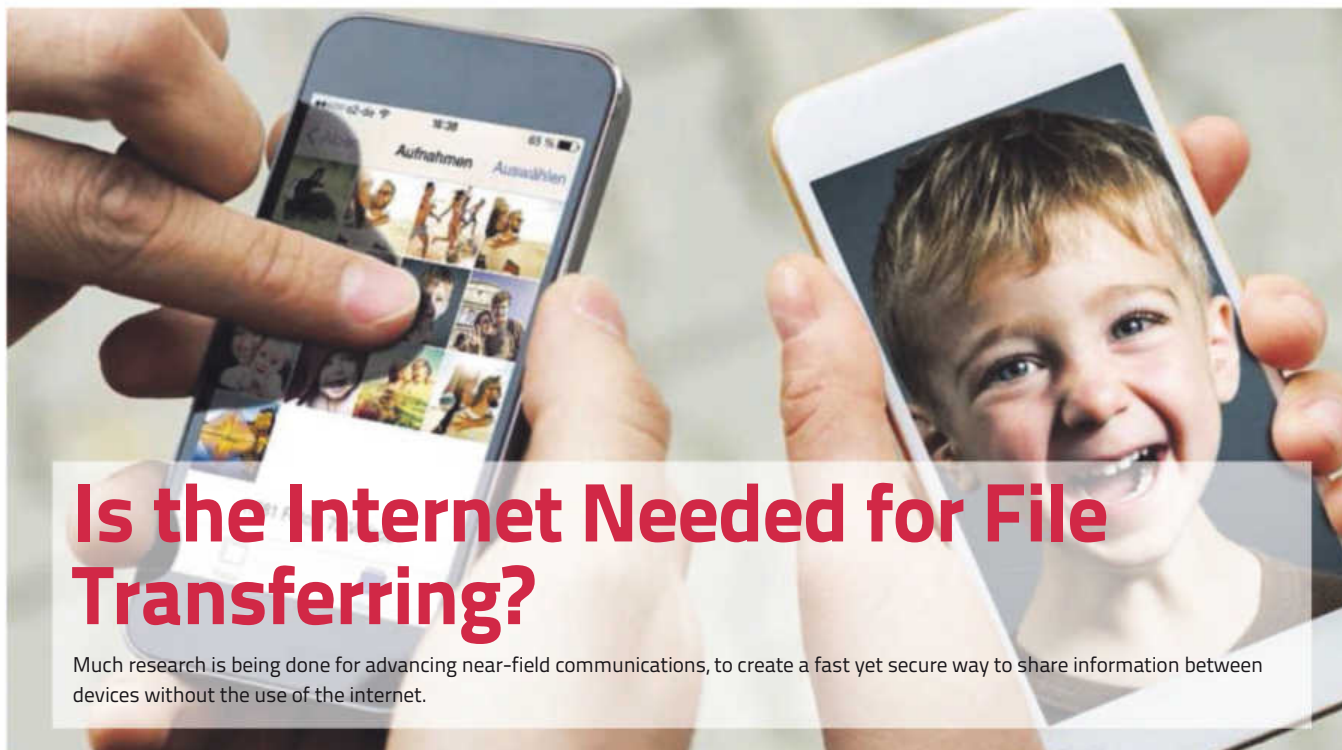
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## Is the Internet Needed for File Transferring?

Much research is being done for advancing near-field communications, to create a fast yet secure way to share information between devices without the use of the internet.



## Is NVDIMM The Future?

NVDIMM might become the successor to Flash, merging both hard disk and RAM into one single piece of hardware, in this article we give you the history of storage and then the future.

## From Zero To Hero

Everyone starts somewhere. We look at today's most valuable start-ups in the world. Ranging from transportation, accommodation, communication and many more, many of these start-ups have improved our life in certain ways.





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